ANNUAL INDEX

VOLUME 42

1965

AUTHORS

A

Ackman, R. G., and Burgher, R. D. Cod liver oil fatty acids as secondary reference standards in the GLC of polyunsaturated fatty acids of animal origin analysis of a dermal oil of the atlantic leatherback turtle, 38

Ahmad, S. I. See Malik, W. U.

Albi, M. A. See Vioque, A.

Albright, L. F. Quantitative measure of selectivity of hydrogenation of triglycerides, 250

—— Win, M. M., and Woods, J. M. Hydrogenation of cottonseed oil with reused catalyst, 556

Alford, John A. See Jensen, R. G.

—— and Smith, James L. Production of microbial lipases for the study of triglyceride structure, 1038

Allen, C. Freeman, and Good, Pearl. Plant lipids, 610

Allred, R. C. See Huddleston, R. L.

Amundson, C. H. See Moore, J. L.

Anders, D. E., Pryde, E. H., and Cowan, J. C. Amines from aldehydes derived from the ozonization of soybean esters, 824

—— Pryde, E. H., and Cowan, J. C. Omegaformylalkanoates by ozonization of unsaturated fatty esters, 236

Anderson, Robert E. See Bottino, Nestor R.

—— and Rakoff, Henry. Gas-liquid chromatography of the positional isomers of methyl nonynoate, 1102

Andrews, Fred, Bjorksten, Johan, Trenk, F. B., Henick, A. S., and Koch, R. B. The reaction of an autoxidized lipid with proteins, 779

Angeloni, F. M. See Pelick, Nicholas.

Applewhite, T. H. Analytical techniques for hydroxy acids in fats and oils, 321

—— See Diamond, M. J.

—— See Freedman, Bernard.

Arlt, H. G., Jr. See Hetman, N. E.

Arnold, Lionel K., and Schutter, Ray. Effect of internal distributors in a packed column on the steam stripping of hexane from soybean oil, 1152

Asmundson, Craig M. See Lyons, James M.

Ault, W. C. See Maurer, E. W.

—— See Parker, Winfred E.

—— See Saggese, E. J.

—— See Scholnick, F.

—— See Walens, H. A.

—— Micich, T. J., Stirton, A. J., and Bistline, R. J. Branched chain fatty acids and sulfonated derivatives, 233

Awl, R. A. See Pryde, E. H.

B

Badami, R. C., and Morris, L. J. The oxygenated fatty acid of *Calendula* seed oil, 1119

Baer, Erich. From the trioses to the synthesis of natural phospholipids: A research trail of forty years, 257

Baer, Sheldon. See Williams, Maurice.

Bagby, M. O. See Mikolajczak, K. L.

—— Siegl, W. O., and Wolff, I. A. A new acid from *Calea urticaefolia* seed oil: *trans*-3, *cis*-9,*cis*-12-octadecatrienoic acid, 50

Bailey, A. V., Boudreaux, G. J., and Skau, E. L. Methods for the determination of cyclopropenoid fatty acids. VI. A direct infrared absorption method, 637

—— Pittman, R. A., Magne, F. C., and Skau, E. L. Methods for the determination of cyclopropenoid fatty acids. V. A spectrophotometric method for cottonseed oils based upon the Halphen-test reaction, 422

—— Pons, W. A., Jr., and Skau, E. L. Cyclopropenoid fatty acid content and fatty acid composition of crude cottonseed oils from successive solvent extractions, 173

Barford, R. A., Luddy, F. E., Herb, S. F., Magidman, P., and Riemenschneider, R. W. Glyceride distribution in adipose and liver glycerides of animals, 446

Barona, Narses, and Prengle, H. W., Jr. Determination of ricinoleic acid by differentiating titrations, 418

Barr, Elizabeth A. See Stirton, A. J.

Bauer, S. T., and Hastings, Randall. Plasticizing properties of esters of monohydric alcohols and tall oil fatty acids, 196

Bazinet, M. L. See Merritt, Charles, Jr.

Beadle, J. B., Just, D. E., Morgan, R. E., and Reiners, R. A. Composition of corn oil, 90

Beal, R. E., Eisenhauer, R. A., and Sohns, V. E. Production of cyclic fatty acids: Water as the reaction solvent, 1115

Beispiel, Myron. See Girard, Theodore A.

Bell, E. W. See Friedrich, J. P.

—— Friedrich, J. P., Gast, L. E., and Cowan, J. C. Preparation of alcohols from cyclic fatty acids, 876

Bennett, O. L. Agricultural Research Service, Meat Inspection Division. Chemical requirements as they apply to the fat and oil industry, 4A

Bergström, Sune. The prostaglandins and their influence on lipid metabolism, 608

Berry, D. A. See Sharpe, R. E.

Berry, J. F., Cevallos, W. H., and Wade, R. R., Jr. Lipid class and fatty acid composition of intact peripheral nerve and during wallerian degeneration, 492

Beutler, Ernest. See Sparkes, R. S.

Beveridge, J. M. R. See Hill, J. G.

Bhattacharyya, D. See Grieves, R. B.

Binder, R. G. See Diamond, M. J.

—— See Freedman, Bernard.

Bistline, R. J. See Ault, W. C.

—— See Stirton, A. J.

Bjorksten, Johan. See Andrews, Fred.

Black, B. C., and Hammond, E. G. Letter to the editor re a sensitive method for phosphorus in lipids, 1002

—— and Hammond, E. G. Separation by dielectric distribution: Theory, 971

—— and Hammond, E. G. Separation by dielectric distribution: Application to the isolation and purification of soybean phosphatides and bacterial spores, 936

Black, D. R. See Horvat, R. J.

Black, L. T., and Mustakas, G. C. Gas-chromatographic determination of residual hexane in hexane-extracted soybean flakes, 62

Blank, E. W. See Simko, J. P., Jr.

—— See Kellenbach, K.

Blank, M. L. See Privett, O. S.

—— Verdino, B., and Privett, O. S. Determination of triglyceride structure via silver nitrate-TLC, 87

Body, D. R., and Shorland, F. B. The geometric isomers of conjugated octadecadienoates from dehydrated methyl ricinoleate, 5

Bollinger, James N., and Reiser, Raymond. The metabolic fate of fatty acids derived from dietary triglycerides, 1130

Borka, L., and Privett, O. S. High voltage electrical discharge reactions of fats and related compounds, 1070

Bottino, Nestor R., Anderson, Robert E., and Reiser, Raymond. Dietary fatty acids: Their metabolic fate and influence on fatty acid biosynthesis, 1124

Boudreaux, G. J. See Bailey, A. V.

Bourne, M. C., and Jennings, W. G. Kinetic studies of detergency. III. Dependence of the Dupré mechanism on surface tension, 546

Bratkowska, I. See Niewiadomski, H.

Breckenridge, W. C. See Kuksis, A.

Brenner, T. E. A procedure and standards for the determination of the biodegradability of alkyl benzene sulfonate and linear alkylate sulfonate, 986

Bresnick, S. R. See Merritt, Charles, Jr.

Bricker, Clark E. See Girard, Theodore A.

Brown, M. Adele. See Kirby, Elizabeth M.

Brown, M. L. See Singleton, W. S.

Burgher, R. D. See Ackman, R. G.

Butterfield, R. O. Letter to the editor re a new control system for monitoring countercurrent distribution with a recording refractometer, 72

C

Cadwallader, D. E., and Richards, J. B. Inclusion compounds of urea and thiourea with cationic surfactants, 337

Cannell, D. W. See Turney, M. E.

Carpenter, Dorothy L. See Jensen, R. G.

Carroll, K. K. Dietary fat and the fatty acid composition of tissue lipids, 516

Cartter, J. L. See Evans, C. D.

Casady, R. B., Kinney, T. B., Jr., and Mize, K. E. Further studies of degossypolized cottonseed meal as a source of plant protein in rabbit feeds, 656

Casal, Jorge J., and Holman, Ralph T. The effect of kind of dietary carbohydrate upon the composition of liver fatty acids of the rat, 1134

Cevallos, W. H. See Berry, J. F.

Chacko, G. K., and Perkins, E. G. Anatomical variation in fatty acid composition and triglyceride distribution in animal depot fats, 1121

Chang, Haun-yang, and Gladstone, Shaul. Separation of oleic acid and linoleic acid by solvent extraction, 346

Chang, S. S. See Krishnamurthy, R. G.

—— See Silveira, A., Jr.

Chapman, D. Infrared spectroscopy of lipids, 353

Chipault, J. R. See Mizuno, G. R.

Chisholm, Mary J., and Hopkins, C. Y. Fatty acids of doxantha seed oil, 49

Churchill, John. See Cowart, Walter.

Clement, G. See Clement, J.

Clement, J., Lavoue, G., and Clement, G. Structure of the intestinal mucosa and lymph glycerides of rats after absorption of fats containing elaidic acid, 1035

Cobb, W. Y., and Day, E. A. Characterization of some dicarbonyls from autoxidized methyl linoleate, 420

—— and Day, E. A. Further observations on the dicarbonyl compounds formed via autoxidation of methyl linoleate, 1110

Codding, D. W. See Privett, O. S.

Coleman, M. H. The pancreatic hydrolysis of natural fats. IV. Some exotic seed fats, 751

—— The unsolved problems of triglyceride analysis, 1040

Collins, F. I. See Evans, C. D.

Coppock, J. B. M., Daniels, N. W. R., and Eggitt, P. W. Russell. Lipid oxidation in flour doughs—observations involving the boron trifluoride interesterification reaction, 652

Cordon, T. C. See Maurer, E. W.

Cornwell, D. G. See Wolfe, D. A.

Cowan, J. C. See Anders, D. E.

—— See Bell, E. W.

—— See Evans, C. D.

—— See Fitton, P.

—— See McConnell, D. G.

—— See Miller, W. R.

—— See Moore, D. J.

—— See Moser, Helen A.

—— See Pryde, E. H.

—— See Sharpe, R. E.

Cowart, Walter, Tate, D. C., and Churchill, John. A study of the influence of storing wood on the yield and quality of tall oil, 202

Coxworth, E. C. M. Oil and protein content, and oil composition of the seeds of some plants of the Canadian prairies, 891

Crauer, Lois S. Continuous recovery of acid oil, 661

Cross, H. D., III. See Mihalik, W. B.

—— See Spangler, W. G.

Cucullu, Alva F. See Robertson, J. A., Jr.

Culp, T. W., Harlow, R. D., Litchfield, Carter, and Reiser, Raymond. Analysis of triglycerides by consecutive chromatographic techniques. II. Ucuhuba kernel fat, 974

Currie, G. T. See Gaddis, A. M.

D

Daniels, N. W. R. See Coppock, J. B. M.

Davison, V. L. See Frankel, E. N.

—— See Jones, E. P.

Day, E. A. See Cobb, W. Y.

—— See Wyatt, C. Jane.

DeJarlais, W. J. See Dufek, E. J.

De Mauriac, R. A. See Sasin, R.

Diamond, M. J., Binder, R. G., and Applewhite, T. H. Alkaline cleavage of hydroxy unsaturated fatty acids. I. Ricinoleic acid and lesquerolic acid, 882

DiBella, E. P., Green, Richard, Kraft, W. M., and Gottesman, R. T. Tall oil fatty acid-formaldehyde derivatives and their application as vinyl plasticizers, 199

DiTullio, W. See Kritchevsky, David.

Dolev, Ami, and Olcott, H. S. The triglycerides of sable fish (*Anaplopoma fimbria*). I. Quantitative fractionation by column chromatography on silica gel impregnated with silver nitrate, 624

—— and Olcott, H. S. The triglycerides of sable fish (Anaplopoma fimbria). II. Fatty acid distribution in triglyceride fractions as determined with pancreatic lipase, 1046

ANNUAL INDEX

VOLUME 42

1965

AUTHORS

A

Ackman, R. G., and Burgher, R. D. Cod liver oil fatty acids as secondary reference standards in the GLC of polyunsaturated fatty acids of animal origin analysis of a dermal oil of the atlantic leatherback turtle, 38

Ahmad, S. I. See Malik, W. U.

Albi, M. A. See Vioque, A.

Albright, L. F. Quantitative measure of selectivity of hydrogenation of triglycerides, 250

—— Win, M. M., and Woods, J. M. Hydrogenation of cottonseed oil with reused catalyst, 556

Alford, John A. See Jensen, R. G.

—— and Smith, James L. Production of microbial lipases for the study of triglyceride structure, 1038

Allen, C. Freeman, and Good, Pearl. Plant lipids, 610

Allred, R. C. See Huddleston, R. L.

Amundson, C. H. See Moore, J. L.

Anders, D. E., Pryde, E. H., and Cowan, J. C. Amines from aldehydes derived from the ozonization of soybean esters, 824

—— Pryde, E. H., and Cowan, J. C. Omegaformylalkanoates by ozonization of unsaturated fatty esters, 236

Anderson, Robert E. See Bottino, Nestor R.

—— and Rakoff, Henry. Gas-liquid chromatography of the positional isomers of methyl nonynoate, 1102

Andrews, Fred, Bjorksten, Johan, Trenk, F. B., Henick, A. S., and Koch, R. B. The reaction of an autoxidized lipid with proteins, 779

Angeloni, F. M. See Pelick, Nicholas.

Applewhite, T. H. Analytical techniques for hydroxy acids in fats and oils, 321

—— See Diamond, M. J.

—— See Freedman, Bernard.

Arlt, H. G., Jr. See Hetman, N. E.

Arnold, Lionel K., and Schutter, Ray. Effect of internal distributors in a packed column on the steam stripping of hexane from soybean oil, 1152

Asmundson, Craig M. See Lyons, James M.

Ault, W. C. See Maurer, E. W.

—— See Parker, Winfred E.

—— See Saggese, E. J.

—— See Scholnick, F.

—— See Walens, H. A.

—— Micich, T. J., Stirton, A. J., and Bistline, R. J. Branched chain fatty acids and sulfonated derivatives, 233

Awl, R. A. See Pryde, E. H.

B

Badami, R. C., and Morris, L. J. The oxygenated fatty acid of *Calendula* seed oil, 1119

Baer, Erich. From the trioses to the synthesis of natural phospholipids: A research trail of forty years, 257

Baer, Sheldon. See Williams, Maurice.

Bagby, M. O. See Mikolajczak, K. L.

—— Siegl, W. O., and Wolff, I. A. A new acid from *Calea urticaefolia* seed oil: *trans*-3, *cis*-9,*cis*-12-octadecatrienoic acid, 50

Bailey, A. V., Boudreaux, G. J., and Skau, E. L. Methods for the determination of cyclopropenoid fatty acids. VI. A direct infrared absorption method, 637

—— Pittman, R. A., Magne, F. C., and Skau, E. L. Methods for the determination of cyclopropenoid fatty acids. V. A spectrophotometric method for cottonseed oils based upon the Halphen-test reaction, 422

—— Pons, W. A., Jr., and Skau, E. L. Cyclopropenoid fatty acid content and fatty acid composition of crude cottonseed oils from successive solvent extractions, 173

Barford, R. A., Luddy, F. E., Herb, S. F., Magidman, P., and Riemenschneider, R. W. Glyceride distribution in adipose and liver glycerides of animals, 446

Barona, Narses, and Prengle, H. W., Jr. Determination of ricinoleic acid by differentiating titrations, 418

Barr, Elizabeth A. See Stirton, A. J.

Bauer, S. T., and Hastings, Randall. Plasticizing properties of esters of monohydric alcohols and tall oil fatty acids, 196

Bazinet, M. L. See Merritt, Charles, Jr.

Beadle, J. B., Just, D. E., Morgan, R. E., and Reiners, R. A. Composition of corn oil, 90

Beal, R. E., Eisenhauer, R. A., and Sohns, V. E. Production of cyclic fatty acids: Water as the reaction solvent, 1115

Beispiel, Myron. See Girard, Theodore A.

Bell, E. W. See Friedrich, J. P.

—— Friedrich, J. P., Gast, L. E., and Cowan, J. C. Preparation of alcohols from cyclic fatty acids, 876

Bennett, O. L. Agricultural Research Service, Meat Inspection Division. Chemical requirements as they apply to the fat and oil industry, 4A

Bergström, Sune. The prostaglandins and their influence on lipid metabolism, 608

Berry, D. A. See Sharpe, R. E.

Berry, J. F., Cevallos, W. H., and Wade, R. R., Jr. Lipid class and fatty acid composition of intact peripheral nerve and during wallerian degeneration, 492

Beutler, Ernest. See Sparkes, R. S.

Beveridge, J. M. R. See Hill, J. G.

Bhattacharyya, D. See Grieves, R. B.

Binder, R. G. See Diamond, M. J.

—— See Freedman, Bernard.

Bistline, R. J. See Ault, W. C.

—— See Stirton, A. J.

Bjorksten, Johan. See Andrews, Fred.

Black, B. C., and Hammond, E. G. Letter to the editor re a sensitive method for phosphorus in lipids, 1002

—— and Hammond, E. G. Separation by dielectric distribution: Theory, 971

—— and Hammond, E. G. Separation by dielectric distribution: Application to the isolation and purification of soybean phosphatides and bacterial spores, 936

Black, D. R. See Horvat, R. J.

Black, L. T., and Mustakas, G. C. Gas-chromatographic determination of residual hexane in hexane-extracted soybean flakes, 62

Blank, E. W. See Simko, J. P., Jr.

—— See Kellenbach, K.

Blank, M. L. See Privett, O. S.

—— Verdino, B., and Privett, O. S. Determination of triglyceride structure via silver nitrate-TLC, 87

Body, D. R., and Shorland, F. B. The geometric isomers of conjugated octadecadienoates from dehydrated methyl ricinoleate, 5

Bollinger, James N., and Reiser, Raymond. The metabolic fate of fatty acids derived from dietary triglycerides, 1130

Borka, L., and Privett, O. S. High voltage electrical discharge reactions of fats and related compounds, 1070

Bottino, Nestor R., Anderson, Robert E., and Reiser, Raymond. Dietary fatty acids: Their metabolic fate and influence on fatty acid biosynthesis, 1124

Boudreaux, G. J. See Bailey, A. V.

Bourne, M. C., and Jennings, W. G. Kinetic studies of detergency. III. Dependence of the Dupré mechanism on surface tension, 546

Bratkowska, I. See Niewiadomski, H.

Breckenridge, W. C. See Kuksis, A.

Brenner, T. E. A procedure and standards for the determination of the biodegradability of alkyl benzene sulfonate and linear alkylate sulfonate, 986

Bresnick, S. R. See Merritt, Charles, Jr.

Bricker, Clark E. See Girard, Theodore A.

Brown, M. Adele. See Kirby, Elizabeth M.

Brown, M. L. See Singleton, W. S.

Burgher, R. D. See Ackman, R. G.

Butterfield, R. O. Letter to the editor re a new control system for monitoring countercurrent distribution with a recording refractometer, 72

C

Cadwallader, D. E., and Richards, J. B. Inclusion compounds of urea and thiourea with cationic surfactants, 337

Cannell, D. W. See Turney, M. E.

Carpenter, Dorothy L. See Jensen, R. G.

Carroll, K. K. Dietary fat and the fatty acid composition of tissue lipids, 516

Cartter, J. L. See Evans, C. D.

Casady, R. B., Kinney, T. B., Jr., and Mize, K. E. Further studies of degossypolized cottonseed meal as a source of plant protein in rabbit feeds, 656

Casal, Jorge J., and Holman, Ralph T. The effect of kind of dietary carbohydrate upon the composition of liver fatty acids of the rat, 1134

Cevallos, W. H. See Berry, J. F.

Chacko, G. K., and Perkins, E. G. Anatomical variation in fatty acid composition and triglyceride distribution in animal depot fats, 1121

Chang, Haun-yang, and Gladstone, Shaul. Separation of oleic acid and linoleic acid by solvent extraction, 346

Chang, S. S. See Krishnamurthy, R. G.

—— See Silveira, A., Jr.

Chapman, D. Infrared spectroscopy of lipids, 353

Chipault, J. R. See Mizuno, G. R.

Chisholm, Mary J., and Hopkins, C. Y. Fatty acids of doxantha seed oil, 49

Churchill, John. See Cowart, Walter.

Clement, G. See Clement, J.

Clement, J., Lavoue, G., and Clement, G. Structure of the intestinal mucosa and lymph glycerides of rats after absorption of fats containing elaidic acid, 1035

Cobb, W. Y., and Day, E. A. Characterization of some dicarbonyls from autoxidized methyl linoleate, 420

—— and Day, E. A. Further observations on the dicarbonyl compounds formed via autoxidation of methyl linoleate, 1110

Codding, D. W. See Privett, O. S.

Coleman, M. H. The pancreatic hydrolysis of natural fats. IV. Some exotic seed fats, 751

—— The unsolved problems of triglyceride analysis, 1040

Collins, F. I. See Evans, C. D.

Coppock, J. B. M., Daniels, N. W. R., and Eggitt, P. W. Russell. Lipid oxidation in flour doughs—observations involving the boron trifluoride interesterification reaction, 652

Cordon, T. C. See Maurer, E. W.

Cornwell, D. G. See Wolfe, D. A.

Cowan, J. C. See Anders, D. E.

—— See Bell, E. W.

—— See Evans, C. D.

—— See Fitton, P.

—— See McConnell, D. G.

—— See Miller, W. R.

—— See Moore, D. J.

—— See Moser, Helen A.

—— See Pryde, E. H.

—— See Sharpe, R. E.

Cowart, Walter, Tate, D. C., and Churchill, John. A study of the influence of storing wood on the yield and quality of tall oil, 202

Coxworth, E. C. M. Oil and protein content, and oil composition of the seeds of some plants of the Canadian prairies, 891

Crauer, Lois S. Continuous recovery of acid oil, 661

Cross, H. D., III. See Mihalik, W. B.

—— See Spangler, W. G.

Cucullu, Alva F. See Robertson, J. A., Jr.

Culp, T. W., Harlow, R. D., Litchfield, Carter, and Reiser, Raymond. Analysis of triglycerides by consecutive chromatographic techniques. II. Ucuhuba kernel fat, 974

Currie, G. T. See Gaddis, A. M.

D

Daniels, N. W. R. See Coppock, J. B. M.

Davison, V. L. See Frankel, E. N.

—— See Jones, E. P.

Day, E. A. See Cobb, W. Y.

—— See Wyatt, C. Jane.

DeJarlais, W. J. See Dufek, E. J.

De Mauriac, R. A. See Sasin, R.

Diamond, M. J., Binder, R. G., and Applewhite, T. H. Alkaline cleavage of hydroxy unsaturated fatty acids. I. Ricinoleic acid and lesquerolic acid, 882

DiBella, E. P., Green, Richard, Kraft, W. M., and Gottesman, R. T. Tall oil fatty acid-formaldehyde derivatives and their application as vinyl plasticizers, 199

DiTullio, W. See Kritchevsky, David.

Dolev, Ami, and Olcott, H. S. The triglycerides of sable fish (*Anaplopoma fimbria*). I. Quantitative fractionation by column chromatography on silica gel impregnated with silver nitrate, 624

—— and Olcott, H. S. The triglycerides of sable fish (Anaplopoma fimbria). II. Fatty acid distribution in triglyceride fractions as determined with pancreatic lipase, 1046

Dornseifer, Theodore P., Kim, Sun C., Keith, Elizabeth S., and Powers, John J. Effect of moisture level on volatile carbonyls in cottonseed oil heated to 210C, 1073
Drogin, Robert. See Livingston, J. R., Jr.
Dufek, E. J., and DeJarlais, W. J. Preparation of some linseed esters of methyl α-D-glucopyranoside using the methoxycarbonyl blocking group, 1104
—— Gast, L. E., and DeJarlais, W. J. Preparation of linseed acid chlorides, 1060
Dugan, L. R., Jr. See Kuchmak, M.
—— See McGinnis, Gertrude W.
—— See Peng, C. Y.
Dupont, Jacqueline. Relationship between utilization of fat and synthesis of cholesterol and total lipid in young female rats, 903
Dutton, H. J. See Frankel, E. N.
—— See Jones, E. P.
—— See Koritala, Sambasivarao.
—— See Mabrouk, A. F.

E

Earle, F. R. See Miller, Roger W.
Eggitt, P. W. Russell. See Coppock, J. B. M.
Eisenhauer, R. A. See Beal, R. E.
Eisner, J. See Iverson, J. L.
Ellis, Rex. See Gaddis, A. M.
Emery, E. M. See Simko, J. P., Jr.
—— See Kellenbach, K.
Emken, E. See Frankel, E. N.
Eng, Lawrence F. See Smith, Marion E.
Evans, C. D. See McConnell, D. G.
—— See Moser, Helen A.
—— See List, G. R.
—— McConnell, D. G., Frankel, E. N., and Cowan, J. C. Chromatographic studies on oxidative and thermal fatty acid dimers, 764
—— Moser, Helen A., McConnell, D. G., Cowan, J. C., Cartter, J. L., and Collins, F. I. Flavor evaluation of natural soybean oils of high and low linolenate content, 736
Evans-Vader, Marra J. See Kirby, Elizabeth M.

F

Farquhar, J. W. Human erythrocyte phosphoglycerides. II. Diet and lecithin structure, 615
Feenstra, W. H. See Keppler, J. G.
Feinland, R. See Hetman, N. E.
Feldman, Gerald. See Rouser, George.
—— Feldman, Lutrell S., and Rouser, George. Letter to the editor re occurrence of glycolipids in the lens of the human eye, 743
—— and Rouser, George. Ultramicro fatty acid analysis of polar lipids: Gas-liquid chromatography after column and thin-layer chromatographic separation, 290
Feldman, Lutrell S. See Feldman, Gerald L.
Feuge, R. O. See Lovegren, N. V.
—— See Tremazi, S. A.
Fioriti, Joseph A. Letter to the editor re reduction of hydroperoxide interference in the 2,4-DNP determination of carbonyls, 743
Firestone, D. See Iverson, J. L.
Fischer, Alfred, and Hanan, S. E. Driers based on tall oil—a review, 109
Fischer, E. See Knaggs, E. A.
Fitton, P., Pryde, E. H., and Cowan, J. C. Preparation of malonaldehyde acetals by ozonolysis of polyunsaturated fatty esters, 14
Fleischer, Sidney, and Rouser, George. Lipids of subcellular particles, 588
Flint, D. R., Lee, Ten-Ching, and Huggins, C. G. Letter to the editor re a simple and rapid method for the determination of myo-inositol by gas-liquid chromatography, 1001
Fogerty, A. C., Johnson, A. R., Pearson, Judith A., and Shenstone, F. S. Preparation of methyl malvalate from *Sterculia foetida* seed oil, 885
Forschirm, Alex. See Kraft, W. M.
Fountaine, J. E., Sasin, Richard, Sasin, G. S., and Witnauer, L. P. Viscosity studies of some long-chain thiol esters, 25
Frampton, V. L. See Pons, W. A., Jr.
Frankel, E. N. See Evans, C. D.
—— Jones, E. P., Davison, V. L., Emken, E., and Dutton, H. J. Homogenous catalytic hydrogenation of unsaturated fats: cobalt carbonyl, 130
Freedman, Bernard, Nelson, Jane S., Binder, R. G., and Applewhite, T. H. Conversion of methyl ricinoleate to methyl 12-ketostearate with raney nickel, 340
Friedrich, J. P. See Bell, E. W.
—— Bell, E. W., and Gast, L. E. Potential synthetic lubricants: Esters of C_{18}-saturated cyclic acids, 643
Froines, John R., Shuster, C. Yvonne, and Olcott, Harold S. Phospholipids of menhaden muscle, 887
Fu, Hwei-Choung. See Harlow, R. D.
Fukuzumi, Kazuo, Miyakawa, Takero, and Morohira, Hidenori. Monomeric dihydroperoxide concentrates from autoxidized methyl docosahexaenoate, 717
Fumagalli, R. See Paoletti, R.
Fumagalli, R., Niemiro, R., and Paoletti, R. Investigation of the biogenetic reaction sequence of cholesterol in rat tissues, through inhibition with AY-9944, 1018

G

Gaddis, A. M., Ellis, Rex, Shamey, Jennie, and Currie, G. T. Carbonyls in oxidizing fat. VII. A comparison of methods of isolating monocarbonyl compounds, 620
Galanos, Dimitris S., and Kapoulas, Vassilios M. Letter to the editor re detection of adulteration of plant oils with special reference to olive oil, 815
Galli, Claudio. See Rouser, George.
Garcia, Pilar Teresa, and Holman, Ralph T. Competitive inhibitions in the metabolism of polyunsaturated fatty acids studied via the composition of phospholipids, triglycerides and cholesteryl esters of rat tissues, 1137
Gast, L. E. See Bell, E. W.
—— See Dufek, E. J.
—— See Friedrich, J. P.
Gauglitz, E. J., Jr., and Gruger, E. H., Jr. Adsorptive bleaching and molecular distillation of menhaden oil, 561
Gaver, R. C., and Sweeley, C. C. Methods for methalolysis of sphingolipids and direct determination of long-chain bases by gas chromatography, 294
Gellerman, Joanne L. See Schlenk, Hermann.
Genest, K. See Sahasrabudhe, Madru R.
Geoghegan, J. T. Letter to the editor re modified color stability test for fatty acids, 815
Gerecht, J. Fred. See Gray, Frederick W.
Gifford, Patricia. See Tidwell, Herbert C.
Gildenberg, L., and Trowbridge, J. R. Gas-liquid chromatographic separation of ethylene oxide adducts of fatty alcohols via their acetate esters, 69
Ginn, M. E., Schenach, T. A., and Jungermann, Eric. Performance evaluation of selected fabric softeners, 1084
Girard, Theodore A., Beispiel, Myron, and Bricker, Clark E. The mechanism of cobalt drier action, 828
Gladstone, Shaul. See Chang, Huan-yang.
Goldblatt, L. A. See Pons, W. A., Jr.
—— See Robertson, J. A., Jr.
Good, Pearl. See Allen, C. Freeman.
Gordon, H. B. See Sasin, R.
Gottesman, R. T. See DiBella, E. P.
Gray, Frederick W., Krems, Irving J., and Gerecht, J. Fred. Some detersive properties of model straight chain sodium alkylbenzenesulfonates, 998
Gray, M. S. See Singleton, W. S.
Green, Richard. See DiBella, E. P.
Greff, R. A., Setzkorn, E. A., and Leslie, W. D. A colorimetric method for the determination of parts/million of nonionic surfactants, 180
Gregory, R. L. See Pohle, W. D.
Grier, O. T. See Whitner, Virginia S.
Grieves, R. B., and Bhattacharyya, D. The effect of temperature upon foam fractionation, 174
Griffin, E. L., Jr. See Mustakas, G. C.
Gross, J. See Wheeler, D. H.
Grossi, E. See Paoletti, R.
Gruger, E. H., Jr. See Gauglitz, E. J., Jr.
Gunstone, F. D., Hamilton, R. J., Padley, F. B., and Qureshi, M. Ilyas. Glyceride studies. Part V. The distribution of unsaturated acyl groups in vegetable triglycerides, 965
—— and Padley, F. B. Glyceride studies. Part III. The component glycerides of five seed oils containing linolenic acid, 957
—— and Qureshi, M. Ilyas. Glyceride studies. Part IV. The component glycerides of ten seed oils containing linoleic acid, 961
Gutierrez, R. See Vioque, A.

H

Haberstroh, H. N. Recent developments and improvements in pressure leaf filters, 42A
Haighton, A. J. Worksoftening of margarine and shortening, 27
Hale, A. H. See Krewson, C. F.
Hale, Reginald. See Krewson, C. F.
Hamilton, R. J. See Gunstone, F. D.
Hamm, D. L., Hammond, E. G., Parvanah, V., and Snyder, H. E. The determination of peroxides by the Stamm method, 920
Hammond, E. G. See Black, B. C.
—— See Hamm, D. L.
—— See Hill, F. D.
Hanan, S. E. See Fischer, Alfred.
Hanson, Andrew V. See Perkins, Edward G.
Harlow, R. D. See Culp, T. W.
—— See Litchfield, Carter.
—— Litchfield, Carter, Fu, Hwei-Choung, and Reiser, Raymond. The triglyceride composition of *Myrica carolinensis* fruit coat fat (bayberry tallow), 747
Harrison, S. A., Peterson, L. E., and Wheeler, D. H. Dimer acid structures. The dehydro-dimer from methyl stearate and ditertiary-butyl peroxide, 2
Hartman, L. Letter to the editor re esterification rates of fatty acids with methanol, 664
Hartmann, Ludwig, and West, R. L. Synthesis of series of pure polyethylene glycol ethers based on n-tridecanol, 7-tridecanol, and oxo-process tridecyl alcohol, 65
Hartsuch, G. P. See Stoll, E. H.
Hasselstrom, T. See Lang, D.
Hastings, Randall. See Bauer, S. T.
Heller, Dorothy. See Rouser, George.
Henick, A. S. See Andrews, Fred.
Henly, R. S. Preparative gas-liquid chromatography of lipids, 673
Hensley, James W. Soil redeposition versus deposition tests in evaluation of laundry detergents, 993
Herb, S. F. See Barford, R. A.
Hetman, N. E., Arlt, H. G., Jr., Paylor, R., and Feinland, R. Letter to the editor re gas chromatographic analysis of tall oil resin acids, 255
Hilditch, T. P. The study of natural fat triglycerides—Retrospect and prospect, 745
Hill, F. D., and Hammond, E. G. Studies on the flavor of autoxidized soybean oil, 1148
Hill, J. G., Kuksis, A., and Beveridge, J. M. R. The effect of diet on the phospholipid composition of the red blood cells of man, 137
Hinderks, G. J. See Vandenheuvel, F. A.
Hoffmann, R. L. See List, G. R.
Hofstetter, H. H. See Holman, Ralph T.
—— Sen, N., and Holman, R. T. Characterization of unsaturated fatty acids by gas-liquid chromatography, 537
—— See Casal, Jorge J.
—— See Garcia, Pilar Teresa.
Holman, R. T. See Hofstetter, H. H.
—— See Mohrhauer, Hans.
—— and Hofstetter, H. H., The fatty acid composition of the lipids from bovine and porcine reproductive tissues, 540
Holmes, R. L., and Moreau, J. P. Preparation of 2-decyl-2-hydroxymethyl-1,3-propanediol from dodecanal and from petroselinic acid, 833
—— Moreau, J. P., and Sumrell, G. Application of the Ritter reaction to petroselinic acid, 922
—— Moreau, J. P., and Sumrell, G. Preparation of 2-hydroxytridecanenitrile from petroselinic acid, 841
Holmes, William L. See Kritchevsky, David.
Hopkins, C. Y. See Chisholm, Mary J.
Horvat, R. J., McFadden, W. H., Ng, Hawkins, Black, D. R., Lane, W. G., and Teeter, R. M. Volatile products from mild oxidation of methyl linoleate. Analysis by combined mass spectrometry-gas chromatography, 1112
Huddleston, R. L., and Allred, R. C. Determination of nonionic surfactant biodegradability: Physical properties vs. colorimetry, 983
—— See Setzkorn, E. A.
Huggins, C. G. See Flint, D. R.
Huston, C. K., Sink, J. D., Miller, R. C., and Shigley, J. W. Fatty acid composition changes in meat lipids during low temperature storage, 141

I

Iimori, M. See Tomiyama, S.
Irving, George W., Jr. USDA research program on mycotoxins, 466A
Isbell, A. F. See Litchfield, Carter.
Iverson, J. L., Eisner, J., and Firestone, D. Detection of trace fatty acids in fats and oils by uren fractionation and gas-liquid chromatography, 1063

J

Jack, E. L. See Morrison, W. R.
Jack, R. Cecil M. Relation of triglycerides to phosphoglycerides in fungi, 1051
Jacobson, Martin. Isolation and characterization of insect attractant lipids, 681
Jangaard, Peter M. A rapid method for concentrating highly unsaturated fatty acid methyl esters in marine lipids as an aid in their identification by GLC, 845
Janusz, E. G. See Kraft, W. M.
Janusz, W. F. See Norcia, L. N.
Jennings, W. G. See Bourne, M. C.
Jensen, R. G., Sampugna, J., Quinn, J. G., Carpenter, Dorothy L., Marks, T. A., and Alford, J. A. Specificity of a lipase *Geotrichum candidum* for *cis*-octadecenoic acid, 1029
Johnson, A. R. See Fogerty, A. C.
Johnson, R. E. See Kaunitz, H.
Jones, E. P. See Frankel, E. N.
—— and Davison, V. L. Quantitative determination of double bond positions in unsaturated fatty acids after oxidative cleavage, 121
—— Scholfield, C. R., Davison, V. L., and Dutton, H. J. Analyses of fatty acid isomers in two commercially hydrogenated soybean oils, 727
Jones, Quentin. See Miller, Roger W.
Jones, R. F. See Ontko, J. A.
Jungermann, Eric. See Ginn, M. E.
Jurriens, G., and Oele, J. M. Determination of hydroxy-acid triglycerides and lactones in butter, 857

——and Kroesen, A. C. J. Determination of glyceride composition of several solid and liquid fats, 9
Just, D. E. See Beadle, J. B.

K

Kabara, Jon J. Brain cholesterol XI.—A review of biosynthesis in adult mice, 1003
Kane, J. G. See Modak, S. N.
Kapoulas, Vassilios M. See Galanos, Dimitris S.
Kartha, A. R. S. Letter to the editor re mean first double bond distance in natural fat fatty acids and its influence on azelaoglyceride analysis, 351
Kaunitz, H., Johnson, R. E., and Pegus, L. A long-term nutritional study with fresh and mildly oxidized vegetable and animal fats, 770
Kawada, Tsukasa. See Krishnamurthy, R. G.
Kean, G. R. See Sink, J. D.
Keeney, Mark. See Wishner, Lawrence A.
Keith, Elizabeth S. See Dornseifer, Theodore P.
Kellenbach, K., Emery, E., and Blank, E. W. Neutral oil in linear alkyl benzene sulfonate slurries: Determination and composition, 1091
Kellum, R. E. See Nicolaides, N.
Kenney, H. E., Komanowsky, Daria, and Wrigley, A. N. Reaction of dichlorocarbene with fats and oils, 19
Keppler, J. G., Schols, J. A., Feenstra, W. H., and Meijboom, P. W. Components of the hardening flavor present in hardened linseed oil and soybean oil, 246
Kim, Sun C. See Dornseifer, Theodore P.
Kinney, T. B., Jr. See Casady, R. B.
Kirby, Elizabeth M., Evans-Vader, Marra J., and Brown, M. Adele. Determination of the length of polymethylene chains in salts of saturated and unsaturated fatty acids by infrared spectroscopy, 437
Kircher, Henry W. The reactions of 1,2-dioctylcyclopropene with silver nitrate, 899
Kirk, L. D. See McGhee, J. E.
——See Mustakas, G. C.
Kleiman, R., Smith, C. R., Jr., and Yates, S. G. Search for new industrial oils. XII. Fifty-eight euphorbiacene oils, including one rich in vernolic acid, 169
Klenk, E. The metabolism of polyenoic fatty acids, 580
Klingerman, R. H., and West, R. W. A simple and efficient method for the recovery of deodorizer distillates, 176A
Klosterman, H. J. See Zimmerman, D. C.
Knaggs, E. A., Yeager, J. A., Varenyi, L., and Fischer, E. Alpha sulfo fatty esters in biologically soft detergent formulations, 805
Knight, H. B. See Parker, Winfred E.
Knopp, P. V., Uhren, L. J., Rohlich, G. A., and Nichols, M. S. Field study of the removal of linear alkylate sulfonate detergents by the activated sludge process, 867
Koch, R. B. See Andrews, Fred,
Komanowsky, Daria. See Kenney, H. E.
Kopas, G. See Mustakas, G. C.
Konen, Dolores A. See Roe, Edward.
Koob, R. P. See Walens, H. A.
Koos, R. E. See Parker, Winfred E.
Koritala, Sambasivarao, and Dutton, H. J. Hydrogenation of linolenate. XII. Effect of solvents on selectivity, 1150
Kraft, W. M. See DiBella, E. P.
——Janusz, E. G., Sughrue, Daniel, and Forschirm, Alex. Tall oil acids in some new coatings systems, 96
Kramer, R. E. See Merritt, Charles, Jr.
Krems, Irving J. See Gray, Frederick W.
Krewson, C. F. See Scott, W. E.
——Ogg, C. L., Oelshlegel, F. J., Jr., Hale, Reginald, and Hale, A. H. Processing ironweed (*Vernonia anthelmintica*) seed in a soybean extraction pilot plant, 563
Krishnamurthy, R. G., Kawada, Tsukasa, and Chang, S. S. Chemical reactions involved in the deep fat frying of foods. I. A laboratory apparatus for frying under simulated restaurant conditions, 878
Kritchevsky, David, Tepper, Shirley A., DiTullio, W., and Holmes, William L. Desmosterol in developing rat brain, 1024
Kritchevsky, Gene. See Murphy, Sister Mary T. J.
——See Rouser, George.
Kroesen, A. C. J. See Jurriens, G.
Kubitz, K. A. See Leonard, R. H.
Kuchmak, M., and Dugan, L. R., Jr. Composition and positional distribution of fatty acids in phospholipids isolated from pork muscle tissues, 45
Kuksis, Arnis. Gas-liquid chromatography of bile acids, 276
——Gas-liquid chromatography of glycerides, 269
——See Hill, J. G.
——and Breckenridge, W. C. Gas chromatographic resolution of butteroil and synthetic triglycerides beyond their carbon numbers, 978
Kwolek, W. F. See Moser, Helen A.

L

Lands, W. E. M. Effects of double bond configuration on lecithin synthesis, 465
Landsberg, J. D., and Sinnhuber, R. O. In vitro inhibition of lipase activity by malonaldehyde, formaldehyde, and propionaldehyde, 821
Lane, W. G. See Horvat, R. J.
Lang, D., Trottier, C., Long, L., Jr., and Hasselstrom, T. Synthesis and biodegradability of isomeric sodium p-(Thia-n-dodecyl)-benzenesulfonates, 1095
Lanteri, A. Continuous and automatic saponification of fatty acids, 228A
Lathrap, C. A. Determination of weight of bulk oil shipments, 155; *addendum*, 816
Lavoue, G. See Clement, J.
Layng, W. G. See Vandenheuvel, F. A.
Lee, Louise S. See Robertson, J. A., Jr.
Lee, S., and Puttnam, N. A. Letter to the editor re gas chromatographic determination of chain-length distribution in fatty acid ethanolamides, 744
Lee, Ten-Ching. See Flint, D. R.
Leonard, R. H., Kubitz, K. A., and Rockwell, J. N. The relationship of the dimer content of rosin determined by gas chromatography to crystallization time, 111
Leopold, E. J. See Sasin, R.
Leslie, W. D. See Greff, R. A.
Liddicoet, T. H., and Smithson, L. H. Analysis of surfactants using pyrolysis-gas chromatography, 1097
List, G. R., Hoffmann, R. L., and Evans, C. D. Gas-liquid chrofatography of hydrocarbons on activated alumina, 1058
Litchfield, Carter. See Culp, T. W.
——See Harlow, R. D.
——Harlow, R. D., Isbell, A. F., and Reiser, Raymond. *Cis-trans* isomerization of oleic acid by nitrous acid, 73
——Harlow, R. D., and Reiser, Raymond. Quantitative gas-liquid chromatography of triglycerides, 849
——and Reiser, Raymond. Application of statistical distribution formulas to triglycerides originating in tissues having regional differences in fatty acid composition, 757
Livingston, J. R., Jr., and Drogin, Robert. The synthesis and some surface active properties of alkylthioalkyl and alkoxyalkyl sulfates, 720
——and Wellman, W. E. Determination of fatty alcohols in fatty alcohol sulfates, 417
Long, L., Jr. See Lang, D.
Lovegren, N. V. See Tremazi, S. A.
——and Feuge, R. O. Solidification of cocoa butter, 308
Luddy, F. E. See Barford, R. A.
——*et al.* Pancreatic lipase hydrolysis of triglycerides by a semimicro technique, *er ratum*, 72
Lundberg, W. O. See Schmid, H. H. O.
Lutton, E. S. See Martin, J. B.
——Phase behavior of aqueous systems of monoglycerides, 1068
Lyons, James M., and Asmundson, Craig M. Solidification of unsaturated/saturated fatty acid mixtures and its relationship to chilling sensitivity in plants, 1056

Mc

McConnell, D. G. See Evans, C. D.
——Evans, C. D., and Cowan, J. C. Solvent winterization of partially hydrogenated soybean oils, 738
McFadden, W. H. See Horvat, R. J.
McGhee, J. E., Kirk, L. D., and Mustakas, G. C. Methods for determining thioglucosides in *Crambe abyssinica*, 889
McGinnis, Gertrude W., and Dugan, L. R., Jr. A rapid low temperature method for preparation of methyl esters of fatty acids, 305
McPherson, James C. See Tidwell, Herbert C.

M

Mabrouk, A. F., Selke, E., Rohwedder, W. K., and Dutton, H. J. Deuterium tracer studies of the mechanism of homogeneous catalytic hydrogenation of sorbic acid with pentacyanocobaltate II, 432
Maerker, Gerhard. Determination of oxirane content of derivatives of fats, 329
——See Walens, H. A.
Magidman, P. See Barford, R. A.
Magne, F. C. Analysis of cyclopropenoid and cyclopropanoid acids in fats and oils, 332
——See Bailey, A. V.
——See Mod, R. R.
Mahadevan, V. Annual Review of Literature, 1965, Part I, 364A
——Part II, 432A
——Part III, 508A
——Part IV, 582A
——Part V, 638A
——Part VI, 700A
Malik, W. U., and Ahmad, S. I. Studies on the behavior of chromium (iii) soaps. I. Spectrophotometry of chromium stearate and palmitate in nonaqueous solutions, 451
——and Ahmad, S. I. Studies on the behavior of chromium (iii) soaps. II. Solubility and viscometric studies with chromium stearate and palmitate in nonaqueous solutions, 454
Mangold, H. K. See Schmid, H. H. O.
Mankowich, A. M. Dimensional analysis applied to detergency, 629
——The energetics of micellar solubilization, 185
Mann, Antoinette N. See Whitner, Virginia S.
Marcopoulos, C. A. Determination of refining loss in oil of pistacia seeds, 149
——Seed and oil of *Pistacia Terebinthus* and *P. Lentiscus*, 1
Marcus, Aaron J., and Zucker-Franklin, Dorothea. Human platelet lipids and their relationship to blood coagulation, 500
Marks, T. A. See Jensen, R. G.
Martin, J. B., and Lutton, E. S. Preparation and phase behavior of positionally isometric propylene glycol monoesters, 529
Masuda, Y. See Silveira, A., Jr.
Maurer, E. W., Cordon, T. C., Weil, J. K., Nunez-Ponzoa, M. V., Ault, W. C., and Stirton, A. J. The effect of tallow-based detergents on anaerobic digestion, 189
Meijboom, P. W. See Keppler, J. G.
Merritt, Charles, Jr., Walsh, J. T., Bazinet, M. L., Kramer, R. E., and Bresnick, S. R. Hydrocarbons in irradiated beef and methyl oleate, 57
Metcalfe, L. D. See Stoll, E. H.
——and Stoll, E. H. The process gas chromatography of fatty acid distillation streams. I. Analytical chemistry, 101
Micich, T. J. See Ault, W. C.
Mihalik, W. B., and Cross, H. D., III. Evaluating detergents by a huck towel method, 177
Mikolajczak, K. L., and Bagby, M. O. Partial reduction of α-eleostearic acid with hydrazine, 43
——Bagby, M. O., and Wolff, I. A. Alkaline isomerization of methyl crepenynate, 243
——Smith, C. R., Jr., and Wolff, I. A. Dihydroxy fatty acids in *Cardamine impatiens* seed oil, 939
Miller, M. E. See Pelick, Nicholas.
Miller, R. C. See Huston, C. K.
Miller, Roger W., Earle, F. R., Wolff, I. A., and Jones, Quentin. Search for new industrial oils. XIII. Oils from 102 species of cruciferae, 817
Miller, W. R., Pryde, E. H., Cowan, J. C., and Teeter, H. M. Nitrosyl chloride adduct of methyl oleate, 713
Miwa, T. K. See Wolff, I. A.
Miyakawa, Takero. See Fukuzumi, Kazuo.
Mize, K. E. See Casady, R. B.
Mizuno, G. R., and Chipault, J. R. Interference of peroxides with the determination of total carbonyls in autoxidized fats, 839
Mod, R. R., Magne, F. C., and Skau, E. L. N,N-dialkylamides of long chain fatty acids as plasticizers, 941
Modak, S. N., and Kane, J. G. Studies in estolides. I. Kinetics of estolide formation and decomposition, 428
Mohrhauer, Hans, and Holman, Ralph T. Tracer experiments to assess metabolic conversions of polyunsaturated fatty acids, 639
Monick, J. A. Evaluation test for scouring agents: fatty soil on a hard surface, 116
Monroe, H. A., Jr. See Scholnick, F.
Moore, D. J. See Pryde, E. H.
——Pryde, E. H., and Cowan, J. C. A comparison of participating solvents during ozonization, 894
Moore, J. L., Richardson, T., and Amundson, C. H. The chemical and physical properties of interesterified milk fat fractions, 796
Moreau, J. P. See Holmes, R. L.
Morgan, R. E. See Beadle, J. B.
Morohira, Hidenori. See Fukuzumi, Kazuo.
Morren, J. E. See Todd, D. B.
Morris, L. J. See Badami, R. C.
Morrison, W. R., Jack, E. L., and Smith, L. M. Fatty acids of bovine milk glycolipids and phospholipids and their specific distribution in the diacylclycerophospholipids, 1142
Moser, Helen A. See Evans, C. D.
——Evans, C. D., Cowan, J. C., and Kwolek, W. F. A light test to measure stability of edible oils, 30
——Evars, C. D., Mustakas, G., and Cowan, J. C. Flavor and oxidative stability of some linolenate-containing oils, 811
Mossakowska, E. See Niewiadomski, H.
Murphy, Sister Mary T. J., Nagy, Bartholomew, Rouser, George, and Kritchevsky, Gene. Identification of elementary sulfur and sulfur compounds in lipid extracts by thin-layer chromatography, 475
Murty, N. L. See Reiser, Raymond.
Mustakas, G. C. See Black, L. T.
——See McGhee, J. E.
——See Moser, Helen A.
——Kirk, L. D., Sohns, V. E., and Griffin, E. L., Jr. Mustard seed processing: Improved methods for isolating the pungent factor and controlling protein quality, 33
——Kopas, G., and Robinson, N. Prepress-solvent extraction of crambe: First commercial trial run of new oilseed, 550A

N

Nagy, Bartholomew. See Murphy, Sister Mary T. J.
Najder, L. E. Mechanically aided thin-film evaporation as a tool for the tall oil industry, 98
Nelson, Jane S. See Freedman, Bernard.
Ng, Hawkins. See Horvat, R. J.
Nicholas, Harold J. Cholesterol turnover in the central nervous system, 1008
Nichols, M. S. See Knopp, P. V.
Nickell, E. C. See Privett, O. S.
Nicolaides, N. Skin lipids. II. Lipid class composition of samples from various species and anatomical sites, 691
——Skin lipids. IV. Biochemistry and function, 708
——and Kellum, R. E. Skin lipids. I. Sampling problems of the skin and its appendages, 685
——and Ray, Thomas. Skin lipids. III. Fatty chains in skin lipids. The use of *vernix caseosa* to differentiate between endogenous and exogenous components in human skin surface lipid, 702
Niemiro, R. See Fumagalli, R.
Niewiadomski, H., Bratkowska, I., and Mossakowska, E. Content of chlorophylls and carotenes in rapeseed oil, 731
Nixon, J. C. See Vandenheuvel, F. A.
Norcia, L. N., and Janusz, W. F. Autoxidation of cholesteryl linoleate in aqueous colloidal suspension, 847
Nosti, N. See Vioque, A.
Novitskaya, Galina V. See Vereshchagin, A. G.
Nuding, N. E. See Stoll, E. H.
Nunez-Ponzoa, M. V. See Maurer, E. W.
——See Stirton, A. J.

O

O'Connor, R. T. Report of the Instrumental Techniques Committee, 1963-64, 347
Oele, J. M. See Jurriens, G.
Oelshlegel, F. J., Jr. See Krewson, C. F.
Ogg, C. L. See Krewson, C. F.
Olcott, H. S. See Dolev, Ami.
——See Froines, John R.
Ontko, J. A., and Jones, R. F. Centrifugal evaporation of organic solvents from a series of solutions, 462
Oref, Izhack. Fat content and liquid-to-solid ratio of chocolate by wide line nuclear magnetic resonance, 425
Osborne, C. E. See Stuckey, B. N.

P

Padley, F. B. See Gunstone, F. D.
Paoletti, P. See Paoletti, R.
——See Fumagalli, R.
Paoletti, R., Fumagalli, R., Grossi, E., and Paoletti, P. Studies on brain sterols in normal and pathological conditions, 400
Parker, Winifred E., Koos, R. E., Knight, H. B., and Ault, W. C. Lubricants. I. Preparation and properties of benzyl and substituted benzyl esters of diiinoleic acid, 792
Parpia, H. A. B. See Rao, M. Narayana
Parvanah, V. See Hamm, D. L.
Patel, G. M., Vyas, D. N., and Patel, K. C. Behavior of lipase activity of the gamma-irradiated groundnut during germination, 617
Patel, K. C. See Patel, G. M.
Paylor, R. See Hetman, N. E.
Pearson, Judith A. See Fogerty, A. C.
Pegus, L. See Kaunitz, H.
Pelick, Nicholas, Wilson, T. L., Miller, M. E., and Angeloni, F. M. Some practical aspects of thin-layer chromatography of lipids, 393
Peng, C. Y., and Dugan, L. R., Jr. Composition and structure of phospholipids in chicken muscle tissues, 533
——and Hanson, Andrew V. Application of computer methods to the calculation of triglyceride structure, 1032
——See Chacko, G. K.
Perkins, E. G., and Van Akkeren, L. A. Heated Fats. IV. Chemical changes in fats subjected to deep fat frying processes: Cottonseed oil, 782
Peterson, L. E. See Harrison, S. A.
Pittman, R. A. See Bailey, A. V.
Pohle, W. D., Tayior, J. R., and Gregory, R. L. A comparison of nuclear magnetic resonance and dilatometry for estimating solids content of fats and shortenings, 1075
Pons, W. A., Jr. See Bailey, A. V.
——and Frampton, V. L. Precision and accuracy in gas-liquid chromatography of C_{14}–C_{18} fatty methyl esters, 786
——and Goldblatt, L. A. The determination of aflatoxins in cottonseed products, 471
Powell, R. G., Smith, C. R., Jr., and Wolff, I. A. *Helichrysum* seed oil. I. Separation and characterization of individual acids, 165
Powers, John J. See Dornseifer, Theodore P.
cial trial run of new oilseed, 550A
Prengle, H. W., Jr. See Barona, Narses.
Privett, O. S. See Blank, M. L.
——See Borka, L.
——Blank, M. L., Codding, D. W., and Nickell, E. C. Lipid analysis by quantitative thin-layer chromatography, 381
Pryde, E. H. See Anders, D. E.
——See Fitton, P.
——See Miller, W. R.
——See Moore, D. J.
——See Sharpe, R. E.
——Awl, R. A., and Cowan, J. C. Reactions of methoxy hydroperoxides derived from methyl oleate. Catalytic hydrogenation, 549
——Moore, D. J., and Cowan, J. C. Vinyl esters of some aldehydic acid acetals, 16
Puttnam, N. A. See Lee, S.

Q

Quinn, J. G. See Jensen, R. G.
Qureshi, M. Ilyas. See Gunstone, F. D.

R

Rader, Charles A. See Schwartz, Anthony M.
Radin, Norman S. The hydroxy fatty acids: Isolation, structure determination, quantitation, 569
Rajagopalan, R. See Raju, N. V.
——See Rao, M. Narayana
Raju, N. V., Rao, M. Narayana, and Rajagopalan, R. Nutritive value of heated vegetable oils, 774
Raju, P. K. See Wood, R. D.
Rakoff, Henry. See Anderson, Robert E.
Ralston, Helma. See Thomas, A. E., III.
Rao, M. Narayana. See Raju, N. V.
——Rajagopalan, R., Swaminathan, M., and Parpia, H. A. B. Studies on a vegetable protein mixture based on peanut and soya flours, 658
Rao, P. Venkata. See Wolfe, D. A.
Ray, Thomas. See Nicolaides, N.
Raymond, Arthur J. See Schmolka, Irving R.
Read, Sheila I. See Sahasrabudhe, Madhu R.
Reiners, R. A. See Beadle, J. B.
Reiser, Raymond. See Culp, T. W.
——See Bollinger, James N.
——See Bottino, Nestor R.
——See Harlow, R. D.
——See Litchfield, Carter.
——See Wood, R. D.
——Williams, Mary Carr, Sorrels, Mary Frances, and Murty, N. L. Letter to the editor re dietary myristate and plasma cholesterol concentration, 1155
Renkonen, Ossi. Individual molecular species of different phospholipid classes. Part II. A method of analysis, 298
Richards, J. B. See Cadwallader, D. E.
Richardson, T. See Moore, J. L.
Riemenschneider, R. W. See Barford, R. A.
Robertson, J. A., Jr., Lee, Louise S., Cucullu, Alva F., and Goldblatt, L. A. Assay of aflatoxin in peanuts and peanut products using acetone-hexane-water for extraction, 467
Robinson, N. See Mustakas, G. C.
Rockwell, J. N. See Leonard, R. H.
Roe, Edward, Konen, Dolores A., and Swern, Daniel. Free radical additions to esters of unsaturated fatty acids. Preparation of dicarboxylic acids and other polyfunctional products, 457
Rohlich, G. A. See Knopp, P. V.
Rohwedder, W. K. See Mabrouk, A. F.
Rouser, George. See Feldman, Gerald
——See Fleischer, Sidney.
——See Murphy, Sister Mary T. J.
——See Siakotos, A. N.
——Feldman, Gerald, and Galli, Claudio. Fatty acid compositions of human brain lecithin and sphingomyelin in normal individuals, senile cerebral cortical atrophy, Alzheimer's disease, metachromatic leucodystrophy, Tay-Sachs and Niemann-Pick diseases, 411
——Galli, Claudio, and Kritchevsky, Gene. Lipid class composition of normal human brain and variation in metachromatic leucodystrophy, Tay-Sachs, Niemann-Pick, chronic Gaucher's and Alzheimer's diseases, 404
——Kritchevsky, Gene, Galli, Claudio, and Heller, Dorothy. Determination of polar lipids: Quantitative column and thin-layer chromatography, 215
——Kritchevsky, Gene, and Galli, Claudio. Speculations on the nature of the metabolic defects in Tay-Sachs, Niemann-Pick, Gaucher's and Alzheimer's diseases, and metachromatic leucodystrophy, 412

S

Saggese, E. J., Zubillaga, Marta, Wrigley, A. N., and Ault, W. C. Urethane foams from animal fats. I. Oxyethylated 9,10-dihydroxystearic acid, 553
Sahasrabudhe, Madhu R. Application of thin-layer chromatography to the quantitative estimation of tissue triglycerides. II. Inglyceride distribution in the livers of calf, pig and rat, 862
——Introduction: Studies on heated fats, 763
——and Genest, K. Letter to the editor re fatty acid composition of morning glory seed oil, 814
——and Read, Sheila I. Application of thin-layer chromatography to the quantitative estimation of tissue triglycerides. II. Influence of methyl parathion of the composition of liver triglycerides in the rat, 864
Sampugna, J. See Jensen, R. G.
Sand, D., Sen, N., and Schlenk, H. Positional isomerism of unsaturated fatty acids in the rat quantification of isomeric mixtures, 511
Sargent, D. J. An amperometric titration method for bleach evaluation, 118
Sasin, G. S. See Fountaine, J. E.
——See Sasin, R.
Sasin, Richard. See Fountaine, J. E.
——De Mauriac, R. A., Leopold, E. J., Gordon, H. B., and Sasin, G. S. Phosphorus derivatives of fatty acids. The addition of dialkyl phosphonates to unsaturated acids and the synthesis of some 11-dialkylphosphonoundecanoamides, 134
Schaafsma, B. R. See Spangler, W. G.
Scharoun, J. E. See Thomas, A. E., III.
Schenach, T. A. See Ginn, M. E.
Schlenk, H. See Sand, D.
——and Gellerman, Joanne L. Arachidonic, 5,11,14,17-eicosatetraenoic and related acids in plants—identification of unsaturated fatty acids, 504
Schlenk, Wilhelm, Jr. Synthesis and analysis of optically active triglycerides, 945
Schmid, H. H. O., Mangold, H. K., and Lundberg, W. O. Characterization and identification of lipids by their critical solution temperatures, 372
Schmolka, Irving R., and Raymond, Arthur J. Micelle formation of polyoxyethylene-polyoxypropylene, 1088
Scholfield, C. R. See Jones, E. P.
Scholnick, F., Monroe, H. A., Jr., Wrigley, A. N., and Ault, W. C. Resins from hydroxyphenylstearic acid, 23
Schols, J. A. See Keppler, J. G.
Schutter, Ray. See Arnold, Lionel K.
Schwartz, Anthony M., and Rader, Charles A. Performance characteristics of sucrose ester detergents, 800
Scott, W. E., and Krewson, C. F. *Vernonia anthelmintica* (L.) Willd. The effect of storage on the epoxy content of the seed oil and trivernolin, 147
Selke, E. See Mabrouk, A. F.
Sen, N. See Hofstetter, H. H.
——See Sand, D.
Setzkorn, E. A. See Greff, R. A.
——and Huddleston, R. L. Ultraviolet spectroscopic analysis for following the biodegradation of hydrotropes, 1081
Shamey, Jennie. See Gaddis, A. M.
Shapiro, David. Chemical synthesis of sphingolipids, 267
Shapiro, S. H. See Stoll, E. H.
Sharpe, R. E., Berry, D. A., Pryde, E. H., and Cowan, J. C. Instrumental study of aldehyde oils and their reaction with selected amines, 835
Shenstone, F. S. See Fogerty, A. C.
Shigley, J. W. See Huston, C. K.
Shorland, F. B. See Body, D. R.
Shuster, C. Yvonne. See Froines, John R.
Siakotos, A. N., and Rouser, George. Analytical separation of nonlipid water soluble substances and gangliosides from other lipids by dextran gel column chromatography, 913
Siegl, W. O. See Bagby, M. O.
Silveira, A., Jr., Masuda, Y., and Chang, S. S. Chemical reactions involved in the catalytic hydrogenation of oils. II. Identification of some volatile by-products, 85
Simko, J. P., Jr., Emery, E. M., and Blank, E. W. Degradation of linear alkylate sulfonates in sewage, 627
Singleton, W. S., and Brown, M. L. Effect of saline electrolyte on particle sizes in fat emulsions by electronic counting, 312
——Gray, M. S., Brown, M. L., and White, J. L. Chromatographically homogenous lecithin from egg phospholipids, 53
Sink, J. D. See Huston, C. K.
——Watkins, J. L., Ziegler, J. H., and Kean, G. R. Radiochlorine as a tracer in fat deposition, 435
Sinnhuber, R. O. See Landsberg, J. D.
Skau, E. L. See Bailey, A. V.
——See Mod, R. R.
Smalling, J. W. General safety in handling solvents, 162A
Smith, C. R., Jr. See Kleiman, R.
——See Mikolajczak, K. L.
——See Powell, R. G.
Smith, F. D. See Stirton, A. J.
——See Weil, J. K.
Smith, F. H. Determination of free and bound gossypol in swine tissues, 145
Smith, James L. See Alford, John A.
Smith, L. M. See Morrison, W. R.
Smith, Marion E., and Eng, Lawrence F. The turnover of the lipid components of myelin, 1013
Smithson, L. H. See Liddicoet, T. H.
Snyder, H. E. See Hamm, D. L.

Soap and Detergent Association, Subcommittee on Biogradation Test Methods. A procedure and standards for the determination of the biodegradability of alkyl benzene sulfonate and linear alkylate sulfonate, 986
Sohns, L. D. See Mustakas, G. C.
Sohns, V. E. See Beal, R. E.
Sorrels, Mary Frances. See Reiser, Raymond.
Spangler, W. G., Cross, H. D., III, and Schaafsma, B. R. A laboratory method for testing laundry products for detergency, 723
Sparkes, R. S., and Beutler, Ernest. The use of human blood cells in the study of lipid metabolism, 665
Stahle, C. W. Engineering and economic aspects of continuous soapstock acidulation, 566
Stein, N. J. See Williams, J. L.
Stein, R. A. Determination of structure of unsaturated fatty acid positional isomers, 326
Stirton, A. J. See Ault, W. C.
—— See Maurer, E. W.
—— See Weil, J. K.
—— Bistline, R. G., Jr., Barr, Elizabeth A., and Nunez-Ponzon, M. V. Salts of alkyl esters of α-sulfopalmitic and α-sulfostearic acids, 1078
—— Smith, F. D., and Weil, J. K. Disodium 2-sulfohexadecyl and 2-sulfooctadecyl sulfates, 114
Stoffel, W. Chemical synthesis of H^3- and 1-C^{14}-labeled polyunsaturated fatty acids, 583
Stoll, E. H. See Metcalfe, L. D.
—— Metcalfe, L. D., Nuding, N. E., Hartsuch, G. P., and Shapiro, S. H. Process gas chromatography of fatty acid distillation streams. II. Design and construction of the process chromatograph, 105
Stouthamer, B., and Vlugter, J. C. Homogeneously catalysed hydrogenation of unsaturated fatty acids to unsaturated fatty alcohols, 646
Stuckey, B. N., and Osborne, C. E. A review of antioxidant analysis in food products, 228
Sughrue, Daniel. See Kraft, W. M.
Sumrell, G. See Holmes, R. L.
Swaminathan, M. See Rao, M. Narayana
Sweeley, C. C. See Gaver, R. C.
Swern, Daniel. See Roe, Edward.
Szutowicz, Walter. Oil fixation in cottonseed meals, 254

T

Tate, D. C. See Cowart, Walter.
Taylor, J. R. See Pohle, W. D.
Teeter, H. M. See Miller, W. R.
Teeter R. M. See Horvat, R. J.
Tepper. Shirley A. See Kritchevsky, David.
Thomas, A. E., III, Scharoun, J. E., and Ralston, Helma. Quantitative estimation of isomeric monoglycerides by thin-layer chromatography, 789
Thrush, R. E. Modern techniques for the production of crude tall oil, 193
Tidwell, Herbert C., McPherson, James C., and Gifford, Patricia. Effect of ingestion of isomeric fatty acids on cholesterol and lipids of serum and liver, 843
Todd, D. B., and Morren, J. E. Continuous soapstock acidulation, 172A
Tomiyama, S., and Iimori, M. A natural soil and mechanism of removal, 449
Tremazi, S. A., Lovegren, N. V., and Fuege, R. O. Characterization and evaluation of some rapeseed oils, 78
Trenk, F. B. See Andrews, Fred.
Trottier, C. See Lang, D.
Trowbridge, J. R. See Gildenberg, L.
Turney, M. E., and Cannell, D. W. Alkaline methylene blue method for determination of anionic surfactants and for amine oxides in detergents, 544

U

Uhren, L. J. See Knopp, P. V.
Urbach, Gerda. Thin-layer chromatography of aliphatic γ- and δ-lactones, 927

V

Van Akkeren, L. A. See Perkins, E. G.
Vandenheuvel, F. A. Study of biological structure at the molecular level with stereomodel projections. II. The structure of myelin in relation to other membrane systems, 481
—— Hinderks, G. J., Nixon, J. C., and Layng, W. G. Precise ultramicro determination of steroid hormones by combined TLC and GLC analysis, 283
Vander Wal, R. J. Semiquantitative structural analysis of fats by thin-layer chromatography of the allyl esters of the products of von Rudloff oxidation, 754; *addendum,* 1155
Varenyi, L. See Knaggs, E. A.
Velasco, James Letter to the editor re improved techniques in neutral oil determination, 160
Verdino, B. See Blank, M. L.
Vereshchagin, A. G., and Novitskaya, Galina V. The triglyceride composition of linseed oil, 970
Vioque, A., Gutierrez, R., Albi, M. A., and Nosti, N. Trace elements in edible fats. IX. Influence of demetalization on the oxidative and flavor stabilities of soybean oil, 344; *addendum,* 664
Vlugter, J. C. See Stouthamer, B.
Vyas, D. N. See Patel, G. M.

W

Wade, R. R., Jr. See Berry, J. F.
Walens, H. A., Koob, R. P., Ault, W. C., and Maerker, G. Rearrangement of epoxy fatty esters to keto fatty esters, 126
Walsh, J. T. See Merritt, Charles, Jr.
Watkins, J. L. See Sink, J. D.
Weil, J. K. See Maurer, E. W.
—— See Stirton, A. J.
—— Stirton, A. J., and Smith, F. D. Sulfonation of hexadecene-1 and octadecene-1, 873
Wellman, W. E. See Livingston, J. R., Jr.
West, R. L. See Hartmann, Ludwig.
West, R. W. See Klingerman, R. H.
Wheeler, D. H. See Harrison, S. A.
—— and Gross, J. Quaternary pyridinium salts from olefins, pyridine and chlorine or bromine, 924
White, J. L. See Singleton, W. S.
Whitner, Virginia S., Grier, O. T., Mann, Antoinette N., and Witter, R. F. Letter to the editor re direct application of serum to thin-layer plates for rapid determination of serum lipids, 1154
Williams, J. L., and Stein, N. J. Determination of cloud points of nonionic surfactants, 1054
Williams, Mary Carr. See Reiser, Raymond.
Williams, Maurice, and Baer, Sheldon. The expansion and extraction of rice bran, 151
Wilson, T. L. See Pelick, Nicholas.
Win, M. M. See Albright, L. F.
Wishner, Lawrence A., and Keeney, Mark. Comparative study of monocarbonal compounds formed during deep frying in different fats, 776
Witnauer, L. P. See Fountaine, J. E.
Witter, R. F. See Whitner, Virginia S.
Witting, Lloyd A. Lipid peroxidation *in vivo,* 908
Wolfe, D. A., Rao, P. Venkata, and Cornwell, D. G. Studies on the fatty acid composition of crayfish lipids, 633
Wolff, I. A. See Bagby, M. O.
—— See Mikolajczak, K. L.
—— See Miller, Roger W.
—— See Powell, R. G.
—— and Miwa, T. K. Effect of unusual acids on selected seed oil analyses, 208
Wood, R. D., Raju, P. K., and Reiser, Raymond. Gas liquid chromatographic analysis of hydroxy fatty acids, as their trimethylsilyl ether derivatives, 81
—— Raju, P. K., and Reiser, Raymond. Gas-liquid chromatographic analysis of monoglycerides as their trimethylsilyl ether derivatives 161
—— and Reiser, Raymond. Cyclopropane fatty acid metabolism: Physical and chemical identification of propane ring metabolic products in the adipose tissue, 315
—— and Reiser, Raymond. Letter to the editor re a fraction collector for preparative gas liquid chromatography, 159
Woods, J. M. See Albright, L. F.
Wrigley, A. N. See Kenney, H. E.
—— See Saggese, E. J.
—— See Scholnick, F.
Wyatt, C. Jane, and Day, E. A. A simplified and precise flavor evaluation procedure for determining oxidative rancidity in vegetable oils, 734

Y

Yates, S. G. See Kleiman, R.
Yeager, J. A. See Knaggs, E. A.

Z

Ziegler, J. H. See Sink, J. D.
Zimmerman, D. C., and Klosterman, H. J. Lipid metabolism in germinating flaxseed, 58
Zubillaga, Marta. See Saggese, E. J.
Zucker-Franklin, Dorothea. See Marcus, Aaron J.

SUBJECTS

A

Abietic acid, GLC analysis, 255
Aceituno oil, fatty acid comp of, 751
—— glyceride comp of, 751
Acetals, of aldehydo esters, 236
—— malonaldehyde, prep, 14
—— vinyl esters of aldehydic acid, 16
Acetamidostearic acid, prep of, 922
C^{14}Acetate, incorporation in cholesterol, 903
—— of lipids, 903
Acetate esters, formation from phosphatide diglycerides, 298
Acetic acid, free radical addition to unsaturated acids, 457
Acetolysis, of phosphatides, 298
(+)-10-Acetoxy-cis-7-hexadecen-1-ol, gypsy moth attractants, 681
(+)-12-Acetoxy-cis-9-octadecen-1-ol, gypsy moth attractants, 681
Acetylenic acids, effect on oilseed analysis, 208
—— in *Helichrysum* oil, 165
Acetylenic esters, GLC analysis, 1102
Acid chlorides, prep, 1060
trans-Acids, AOCS Spectroscopy Committee standards, 347
—— effects of ingestion of on liver and serum lipids, 843
Acidulate soapstock, continuous process, 661
Acidulation, continuous, of soapstock, 172A
Activated sludge, degradation of LAS, 627
Active sludge process, removal of LAS by, 867
Acrylamidostearic acid, prep of, 922
α-Acyl-glycerylphosphorylcholine, lecithin synthesis, 465
Acyltransferuses, in lecithin formation, 465
Adipose fats, glyceride distribution, 446
Adulteration, of oils, 815
Aflatoxin, in cottonseed products, assay method, 471
—— in peanuts, assay method, 467
—— USDA research on, 466A
Agricultural Research Service, Meat inspection, chemical requirements, 4A
Alcohols, fatty, separation of ethylene oxide adducts of, 69
—— IR analysis, 353
—— prep from cyclic fatty acids, 876
Aldehyde acids, by ozonolysis of unsaturated acids, 236
Aldehyde oils, derivatives, 835
—— prep of, 835
—— properties of, 835
—— reaction of, with amines, 835
Aldehydes, from autoxidized methyl linoleate, 1110
—— flavor components of hydrogenated oils, 246
—— in oxidizing fats, 620
—— by reduction of ozonized oleates, 549
—— from reductive decomp of ozonized methyl oleate, 549
Aldehydic acid acetals, vinyl esters of, 16
Aliphatic lactones, separation of, 927
Alkali builders, effect of on soil redeposition, 998
Alkalinity, control in soap making, 228A
Alkanolamides, analysis by P-GC, 1097
Alkoxyalkyl sulfates, detergency, 720
Alkoxyphosphatides, 298
Alkyd resins, tall oil based, 96
Alkylbenzene sulfonates (ABU), analysis, 544
—— analysis by P-GC, 1097
—— biodegradation, 189
—— detersive properties of, 998
—— dtmn of biodegradability of, 986
—— evaluation of detergency, 629
—— miscellar solubilization, 185
—— sultur modified, 1095
Alkyl bromides, critical solution temp analysis, 372
2-Alkyl carboxylic acids, olefin addition to fatty acids, 233
Alkyl chlorides, prep, 65
Alkyl-dimethyl-benzyl-ammonium chloride, urea adduct, 337
Alkyl ethoxy sulfates, analysis by P-GC, 1097
Alkyl sulfates, analysis, 544
—— analysis by P-GC, 1097
—— analysis of trace alcohols, 417
—— detergency, 720
—— evaluation of detergency, 629
—— tallow-based biodegradation, 189
Alkylthioalkyl sulfates, detergency, 720
Allyl esters, TLC of, 754
Aluminum chloride, rearrangement of epoxy esters, 126
Alyssoides utriculatum (L.) Med. seed oil, comp of, 817
Alyssum argenteum Vitm. seed oil, comp of, 817
Alyssum campestre L. seed oil, comp of, 817
Alyssum constellatum Boiss. seed oil, comp of, 817
Alyssum dasycarpum Steph. seed oil, comp of, 817
Alyssum desertorum Stapf. seed oil, comp of, 817
Alyssum minimum Willd. seed oil, comp of, 817
Alyssum murale Waldst. and Kit. seed oil, comp of, 817
Alyssum tortuosum Rupr. seed oil, comp of, 817

Alzheimer's disease, effect on brain lipids, 404, 411
American dragonhead seeds, oil and protein content, 891
Amidostearic acid derivatives, prep of, 922
Amine oxides, analysis, 544
—— analysis by P-GC, 1097
Amines, prep from aldehydes, 824
—— reaction of with aldehyde oils, 835
Anaerobic digestion, of tallow-based detergents, 189
Analysis of Natural Fat Triglycerides, T. P. Hilditch Symposium, Part I, beginning on page 745
—— Part II, beginning on page 849
—— Part III, beginning on page 945
—— Part IV, beginning on page 1029
Analysis of Unusual and Minor Constituents, Symposium, Part I. Beginning on page 208
—— Part II. Beginning on page 321
Anaplopoma fimbria (sable fish), glycerides, 624
Anchusa azurea seed oil, glycerides of, 965
5 α-Androstane, analysis, 283
Androstran hormones, analysis, 283
Anemia, effect on blood lipids, 665
Animal depot fats, triglyceride distribution, 1121
Anionic surfactants, analysis, 544
Antioxidants, *in vivo*, 908
Antioxidants in foods, a review, 228
AOCS Method Ca 9f-57, modifications, 160
AOM test, effect of demetalizing soybean oil, 344
Arabidopsis thaliana Schur seed oil, comp of, 817
Arabis glabra (L.) Bernh. seed oil, comp of, 817
Arabis hirsuta (L.) Scop ssp. hirsuta seed oil, comp of, 817
Arabis laevigata (Muhl.) Poir seed oil, comp of, 817
Arachidonic acid, biosynthesis, 504, 580
—— metabolism with labeled acetate, 639
—— as prostaglandin intermediate, 608
—— radiolabeled, 583
Argemone Mexicana seed oil, glycerides of, 961
Artimisia biennis seed oil, characteristics and fatty acid comp, 891
Artimisia biennis seeds, oil and protein content, 891
Arylsulfonate, measurement of biodegradation, 1081
Aspergillus flavus, toxic metabolite (aflatoxin), 467
Atriplex hortensis seeds, oil and protein content, 891
Autoxidation, of cholesterol linoleate suspension, 847
—— of methyl linoleate, 1110, 1112
—— of soybean oil, effect of metals, 344
Autoxidation flavor, soybean oil with different linolenic acid content, 736
Autoxidized docosahexaenoic acid, monomeric dihydroperoxide concentrates from, 717
Autoxidized fats, dtmn of carbonyls in, 839
Autoxidized lard, carbonyl content, 620
Autoxidized linoleate, dicarbonyl content, 420
Autoxidized oils, flavor evaluation, 734
Autoxidized soybean oil, flavor, 1148
—— hydrogenation by-products, 85
Axyris amaranthoides seeds, oil and protein content, 891
AY 9944, effect on cholesterol formation in rats, 1018
Azelaaldehydate, from ozonized methyl oleate, 549
Azelaaldehyde, amination of, 824
Azelaaldehydic esters, by ozonolysis, 236
Azelaic acid, from ozonized methyl oleate, 549
Azelaoglycerides, GLC analysis, 269
—— in glyceride analysis, 351

B

Baby's breath seeds, oil and protein content, 891
Bacterial spores, separation of, 936
Bactericidal power, of quaternaries, 924
Balloon flower seeds, oil and protein content, 891
Barbarea vulgaris R. Br. seed oil, comp of, 817
Bayberry tallow, GLC analysis of FA as monoglycerides, 161
—— glyceride comp, 747, 757
—— variations in comp of, 757
Beans, cocoa, 2-oleopalmitostearin from, 945
Bee, sex attractants, 681
Beef, depot fat glycerides, 446
—— irradiated, hydrocarbons in, 57
Beef brain lipids, separation, 913
Beef fat, fatty acid comp, 516
—— nutrition study of oxidized, 770
Beef lipids, change in storage, 141
Beef tallow, biosynthesis of cholesterol, 903
—— change in low temp storage, 141
—— fatty acid comp, 141, 1121
—— glyceride comp, 141, 754
—— glyceride structure, 1121
Beef testes and ovaries, lipids, 540
Benzamidostearic acid, prep of, 922
Benzene sulfonate, measurement of biodegradation, 1081
Benzyl dilinoleate, as lubricant, 792
Biennial wormwood seeds, oil and protein content, 891
Bignonia tweediana Lindl., see *Doxantha unguis-cati*.
Bile acids, GLC analysis, a review, 276
Biodegradability, dtmn of, 983
—— of linear alkylate sulfonates, 627
—— of nonionic surfactants, 983
—— standard dtmn of, 986
—— of sulfide modified ABS, 1095
—— of sulfo acid based detergents, 1078
—— of α-sulfo fatty acids, 805
—— UV spectroscopic analysis, 1078
Biodegradation, tallow-based detergents, 189
Biodegradation of detergents, activated sludge test, 180
—— colorimetric measure of, 180
—— river die-away test, 180
—— shake flask test, 180
Biophosphatidic acids, synthesis, 257
Biosynthesis, of animal fats, 516
—— of lipids, 903
—— of polyunsaturated acids, 639
Black cod (sable fish), glycerides, 624
Black liquor, continuous acidulation, 193
Bleaching agents, evaluation, 118
Blood, lipids, a review, 665
Blood coagulation, lipid involvements, 500
Blood platelet lipids, in blood coagulation, 500
Blue bur seed oil, glycerides of, 965
Blue bur seeds, oil and protein content, 891
Bombacic acid, analysis, 332
Bombacopsis glabra seed oil, glycerides of, 965
Bombax oleagineum seed oil, analysis of, 208
Bombyx mori, sex attractants, 681
cis-Bonds, IR dtmn, 353
trans-Bonds, IR dtmn, 353
Borage seed oil, glycerides of 965
Boreava orientalis Jaub. et Sp. seed oil, comp of, 817
Boron trifluoride, rearrangement of epoxy esters, 126
Brain, cholesterol biosynthesis, review, 1003
—— myo-inositol in, 1001
Brain lipids, analysis of, 290
—— comparison with peripheral nerve lipids, 492
—— normal and diseased, 404, 411
—— normal and pathological, 400, 404, 411
—— a review, 475
—— separation, 913
Brain cholesterol, biosynthesis, 1018
Brain Sterol Metabolism, Symposium, Part I, beginning on page 1003
Branched chain acids, of skin, 702
Branched chain fatty acids, metabolism, 516
—— sulfonated derivatives, 233
Brassica adpressa Boiss. seed oil, comp of, 817
Brassica tournefortii Gouan. seed oil, comp of, 817
Brassylic acid, synthesis, 457
Brevoortia tyrranus muscle, phospholipids in, 887
Bulk oil, dtmn of weight, 155
But-2-en-1,4 dial, from autoxidized methyl linoleate, 1110
—— identification in autoxidized linoleate, 420
Butolic acid, structure, 569
Butter, cocoa, behavior on molding, 308
—— fatty acid comp of, 849
—— glyceride comp of, 849
—— solidification, polymorphism, 308
Butter, hydroxy acids and lactones in, 857
—— kokum, fatty acid and glyceride comp of, 751
—— worksoftening of, 27
Butterfat, analysis, 305
—— analysis by GLC, 269
—— interesterification of, 796
—— fatty acid comp, 796, 1063
Butter oil, triglycerides of, 978
Butyl 9-aminononanoate, 824
p-Butyl thiostearate, viscosity, 25
Butylated hydroxy anisole (BHA), dtmn in foods, 228
Butylated hydroxy toluene (BHT), dtmn in lard, 228

C

Cadmium oxides, for hydrogenolysis of fatty acids, 646
Cakile maritima Scop. seed oil, comp of, 817
Calea urticaefolia seed oil, comp of, 50
—— analysis of, 208
—— *trans*-3, *cis*-9, *cis*-12-octadecatrienoic acid in, 50
Calendula seed oil, hydroxy acid of, 1119
Calendula officinalis seed oil, analysis of, 208
—— glycerides of, 965
—— hydroxy acid, 1119
Calf liver fats, comp of, 862
Camelina microcarpa Andrz. seed oil, comp of, 817
Camelina rumelica Velen. seed oil, comp of, 817
Campanula rapunculoides seed oil, characteristics and fatty acid comp, 891
Campanula rapunculoides seeds, oil and protein content, 891
Cancer, effect on brain cholesterol, 1003
Candlenut oil, glycerides of, 957
Carbohydrates of diet, effect on rat liver lipids, 1134
Carbonyls, analysis in oils, 743
—— from autoxidized linoleate, 1112
—— dtmn of, 839
—— formation from heated oil containing water, 1073
—— in oxidizing fats, 620
Carboxymethylstearic acid, synthesis by addition of acetic acid to oleic acid, 457
Cardamine hirsuta L. seed oil, comp of, 817
Cardamine impatiens L. seed oil, comp of, 939
—— dihydroxy acids in, 817
Cardamine impatiens L. seed oil, comp of, 817
Cardiolipin, conversion to diglyceride acetates, 293
—— in mitochondria and microsomes, 588
—— of plants, 610
Carotene, content in rapeseed oil, 781
Carrichtera annua (L.) Asch. seed oil, comp of, 817
Castor oil, analytical techniques, 321
—— estolides, 428
—— GLC analysis, 81
Catalpa bignonoides seed oil, glycerides of, 965
Catalytic hydrogenation, of oils, 130
Catalytic reduction, unsaturated acids to unsaturated alcohols, 646
Catalyst hydrogenation, tracer studies, 432
Catechol bis-9,10-epoxystearate, rearrangement, 126
Cation exchange resins, demetalization of soybean oil, 344
Cationic softeners, evaluation, 1084
Cationic surfactants, urea adducts, 337
Caulanthus inflatus Wats seed oil, comp of, 817
Cells, lipids of cell components, review, 588
Centrifugal evaporator, for organic solvents, 462
Cephalin, chicken muscle, 533
—— conversion to diglyceride acetates, 298
—— enzymatic hydrolysis of, 45
—— L-α-glycerylphophorylethanolamine synthesis, 257
—— IR spectra, 353
—— in mitochondria and microsomes, 588
—— in nerve lipids, 492
Ceramide, analysis in lipids, 215
—— of cow's milk, fatty acid comp, 1142
—— long chain bases, 294
Cerasine, synthesis of, 267
Cerebrosides, structures of, 267
—— analysis in lipids, 215
—— of blood cells, review, 665
—— long chain bases, 294
—— in myelin, 1013
—— in nerve lipids, 492
—— of plants, 610
Cetyldimethylbenzlammonium chloride, urea adducts, 337
Cetyl esters, critical solution temp analysis, 372
Cetyl-ethylmorpholinum chloride, urea adduct, 337
N-Cetyl pyridinium chloride, urea adducts, 337
Cetyl-trimethyl-ammonium bromide, urea adduct, 337
Chenodeoxycholic acid, GLC analysis, 276
Chenopodium hybridum var. gigantosperum seeds, oil and protein content, 891
Chenopodium rubrum seeds, oil and protein content, 891
Chicken, depot fat glycerides, 446
Chicken fat, comparison of experimental and computer distribution, 1032
—— nutrition study of oxidized, 770
Chicken muscle, phospholipids, 533
Chinese tallow, optically active glycerides in, 945
Chlorine^{38}, in tracer studies in lipid metabolism, 435
Chloronitrosostearic acid, synthesis, 713
Chlorophyll, content in rapeseed oil, 781
Chocolate, liquid-solid ratios by NMR, 425
Cholanic acid, GLC analysis, 276
3-α-Cholanic acid, GLC analysis, 276
7-β-Cholanic acid, GLC analysis, 276
12-α-Cholanic acid, GLC analysis, 276
Cholesterol, analysis in lipids, 215
—— autoxidation of, 847
—— biogenesis in rat liver and brain, 1018
—— biosynthesis of, 903
—— biosynthesis in mouse brain, review, 1003
—— of blood cells, review, 665
—— in blood of rats fed oxidized fats, 770
—— in brain lipids, 400
—— of crayfish, 633
—— effect of ingesting heated fats on, 774
—— effect of ingestion of trans acids on serum, 843
—— in nervous system, 1008, 1013
—— *in vivo* oxidation to 7- and 25-hydroxy cholesterol, 1008
—— in plasma, effect of dietary myristate, 1155
—— TLC analysis, 381
Cholesterol acetate, autoxidation of, 847
Cholesterol acids, in animals, 516
—— critical solution temp analysis, 372
Cholesterol esters, IR spectra, 353
—— in nerve lipids, 492
Cholesterol oleate, autoxidation of, 847
—— TLC analysis, 381
Cholesterol palmitate, autoxidation of, 847
Cholesterol linoleate, autoxidation of, 847
Cholestone, analysis of, 283
Cholic acid, GLC analysis of, 276
Chromatograph, gas liquid, design for plant monitoring, 105

Chromatographic analysis, of lipids, interferences, 208
Chromatographic refining, of Pistacia oil, 149
Chromatography,
of lipids, a review, 215
monitoring fatty acid distillation, 105
preparative, of glycerides, 269
a review of use on hydroxy acids, 321
of sphingolipid bases, 294
of steroid hormones, 283
ultramicro techniques, 290
column, of lipids, a review, 215
gas, AOCS subcommittee report, 347
separation of glycerides by, 978
gas liquid, analysis of triglycerides, 849
of bile acids, 276
columns and support for glyceride analysis, 269
detection of trace fatty acids, 1063
dtmn of residual hexane in soybean flakes, 62
dtmn of triglycerides, 9
effect of dehydration of hydroxy acids, 208
of ethylene oxide adducts, 69
of glycerides, a review, 269
of hydrocarbons from fats, 1058
of hydroxy acids, 81
of hydroxy acids, 569
of monoglycerides, 161
precision and accuracy of, 786
preparative fraction collector, 159
preparative, review, 673
reference standards for, 38
of steroid hormones, 283
of unsaturated acids, a review, 537
pyrolysis-gas (P-GC), of surfactants, 1097
thin layer, of aliphatic lactones, 927
analysis of liver fats, 862
analysis of polar lipids, 215
assay for aflatoxin, 467
of bile acids, 276
dtmn of monoglycerides, 789
dtmn of triglycerides, 87
dtmn of triglycerides, 9
equipment, 381, 393
of glycerides, 87
methodology, 381, 393
a review, 381, 393
of steroid hormones, 283
two dimensional, 215
Chromium soaps, viscosity in nonaqueous solutions, 454
Chromium stearate and palmitate, spectrophotometry, 451, 454
Cleaners, abrasive, 116
Cloud points, of nonionic surfactants, 1054
by instrumental method, 1054
Cobalt carbonyl, hydrogenation catalyst, 130
Cobalt dryers, mechanism of action, 828
Cobaltothiočyanote, colorimetric analysis of ethoxylates, 180
Cocoa beans, 2-oleopalmitostearin from, 945
Cocoa butter, behavior on molding, 308
fatty acid comp of, 9, 849
glycerides of, 9
glyceride comp of, 849
solidification, polymorphism, 308
Coconut, α-sulfo esters, 805
Coconut oil, analysis, 305
effect of feeding heated, 774
effects of ingestion on liver and serum lipids, 843
GLC analysis or, 269
GLC analysis of FA as monoglycerides, 161
hydrogenated, in rat diets, 511
Coconut soapstock, continuous acidulation, 661
Cod liver oil, fatty acid comp, 1029
fatty acids as reference standards in GLC, 38
fatty acids of, 38
lipase hydrolysis, 1029
Color of oils, report of AOCS subcommittee, 347
Color stability test, for fatty acids, 815
Column chromatography, see Chromatography, column.
Common tickseeds, oil and protein content, 891
Computers, use to simulate triglyceride structure, 1032
Confectioners' fats, behavior on molding, 308
Conjugated dienoic acids, formation in hydrogenation, 130
Conjugation, effect on IR spectra, 353
Conjugated fatty acids, position of double bonds, 121
Conjugated hydroxy acids, effect on oilseed analysis, 208
Conjugated trienoic acid, by isomerization of crepenynic acid, 243
Conringia orientalis (L.) Dum.-Cours. seed oil, comp of, 817
Conringia planisiliqua Fisch. and Mey. seed oil, comp of, 817
Continuous Saponification, of fatty acids, 228A
Continuous soapstock acidulation, engineering and economics, 566
Convolvulus tricolor L. seed oil, fatty acid comp of, 814
Copper oxides, for hydrogenolysis of fatty acids, 646
Coprinus comatus, lipids of, 1051
Coreopsis drummondii seed oil, characteristics and fatty acid comp, 891
Coreopsis drummondii seeds, oil and protein content, 891
Coreopsis tinctoria seed oil, characteristics and fatty acid comp, 891
Coreopsis tinctoria seeds, oil and protein content, 891
Corn oil, analysis, 305
biosynthesis of cholesterol, 903
carbonyls formed in during heating, 776
carbonyls in oxidized, 839
comp of, commercial, U.S. and world, 90
effects of deep frying in, 878
effect on red blood cell lipids, 615
fatty acid comp, 776
flavor evaluation, 734
glycerides of, 961
glyceride comp of, 754
hydrogenated, in rat diets, 511
triglyceride structure by TLC, 87
Corn oil diglyceride, GLC analysis of, 269
Corn oil monoglycerides, analysis of, 161
Corn soapstock, continuous acidulation, 661
Coronaric acid, in *Helichrysum* oil, 165
Coronopus didymus (L.) Sm. seed oil, comp of, 817
Cortico steroids, analysis of, 283
Cottonseed, fractional solvent extraction, 173
Cottonseed meal, oil fixation, 254
in rabbit feeds, 656
cyclopropenoid acids, 173
detection of in olive oil, 815
dtmn of cyclopropenoid acids, 422
effect of continuous heating on, 782
effect of moisture on carbonyls during heating, 1073
fatty acid comp, 9
flavor evaluation, 734
frying in, 782
glyceride comp of, 754
glycerides of, 9
glycerides of, 961
hydrogenation with reused catalyst, 556
isomerization by nitrous acid, 73
nutrition study of oxidized, 770
selectivity of hydrogenation, 250
stability test, 30
Cottonseed products, aflatoxin assay, 471
Cottonseed soapstock, continuous acidulation, 661
Coulter Counter, measurement of emulsion particle size, 312
Countercurrent distribution, analysis of hydrogenated esters, 130
an analysis of hydroxy acids, 321
monitoring, 72
Cow cockle seeds, oil and protein content, 891
Crambe abyssinica seed, dtmn of thioglucosides in, 889
Crambe abyssinica seed, processing of, 550A
Crambe cordifolia Stev. seed oil, comp of, 817
Crambe hispanica L. seed oil, comp of, 817
Crambe meal, amino acid comp of, 550A
Crambe oil, comp of, 550A
stability of, 550A
Crambe orientalis L. seed oil, comp of, 817
Crambe seed, thioglucoside content of, 550A
Crambe seed oil, flavor and oxidative stability of, 811
Crambe tatarica Jacq. seed oil, comp of, 817
Crayfish lipids, fatty acid comp, 633
Creatinuria, factors affecting, 908
Crepenynic acid, in *Helichrysum* oil, 165
Crepenynic acid methyl ester, alkaline isomerization, 243
Crepis foetida L. seed oil, analysis of, 243
UV and GLC analysis of, 208
Critical micelle concentration (CMC), of detergents, 720
of nonionics, 1088
Critical solution temperature (CST), lipid identification, 372
Cruciferae seed oil, comp of, 550A
Crypto-active triglycerides, synthesis and analysis of, 945
Cuphea carthagenensis seed oil, analysis of, 208
Cuphea llavea seed oil, analysis of, 208
Cuphea painteri seed oil, analysis of, 208
Cyanocarbethoxymethyl stearic acid, synthesis of, 457
Cyclic acids, as potential lubricant base, 643
C_{36}-Cyclic acids, in lubricants, 643
Cyclic anhydride, 2
Cyclic fatty acids, prep of alcohols from, 876
synthesis using water as solvent, 1115
Cyclopentenyl acids, effect on oilseed analysis, 208
Cyclopropane fatty acids, metabolism in rats, 312
Cyclopropene fatty acids, dtmn of, 899
Cyclopropanoid acids, analysis of, a review, 332
Cyclopropenoid acids, analysis of, a review, 332
dtmn of, 420
effect on oil seed analysis, 208
IR absorption analysis, 637
Cyclopropenoid fatty acids, content of cottonseed oil, 173
Cytolipin H, synthesis of, 267

D

2,4-Decadeinoic acid, in *Sapiumsebiferum,* 169
2-Decyl-2-hydroxymethyl-1,3-propanedial, prep of, 833
Decyl tallate, as plasticizer, 196
***p*-Decyl thiomyristate,** viscosity of, 25
***p*-Decyl thiopalmitate,** viscosity of, 25
***p*-Decyl thiostearate,** viscosity of, 25
Deep fat frying, effect of moisture on carbonyl formation, 1073
hydrocarbons in volatiles, 1058
Deer, depot fat glycerides, 446
Dehydroabietic acid, GLC analysis, 255
24-Dehydrocholesterol, in nerve tissue, 400
7-Dehydrocholesterol, in rats treated with drugs, 1018
Dehydrophytosphingosine, analysis of, 294
Dehydrostearate dimer, mass spectrum of, 2
Delphinium ajacis seed oil, characteristics and fatty acid comp, 891
Delphinium ajacis seeds, oil and protein content, 891
Delphinus delpis ponticus oil, optically active glycerides from, 945
Deodorizer distillates, recovery of 176A
2-Deopalmitostearin, x-ray diffraction data, 945
Deoxycholic acid, GLC analysis, 276
Deposition tests, vs. soil redeposition, 993
Depot fats, anatomical variation, 1121
glyceride distribution, 446
in man, seal, ox, 516
triglyceride distribution, 1121
Dermochelys coriacea coriacea (Linné), fatty acids of, 38
Descurainia pinnata (Walt.) Britt. var. pinnata seed oil, comp of, 817
Desmosterol, in developing rat brain, 1024
(24-dehydrocholesterol), in nerve tissue, 400
in rats treated with drugs, 1018
Desolventizing, effect of packed column, 1152
Detergency, evaluation of laundry products, 723
evaluation of mechanism, 629
evaluation using natural soils, 449
evaluation using natural soil, 723
kinetic studies, 546
mechanism of, 546
practical evaluation using soiled towels, 177
α-sulfo branched chain fatty acids, 233
α-sulfo fatty derivatives, 114
thermodynamic analysis of activity, 185
Detergency tests, use of natural soils, 449
Detergent removal, by active sludge process, 867
Detergents, analysis of, 544
analysis in biodegradability studies, 1078
analysis of dyestuff solubilization, 185
analysis by pyrolysis GLC, 1097
concentration in foams, 174
degradation in sewage, 627
dtmn of diodegradability of, 983
evaluation by towels with practical soil, 177
performance of salts of alkyl esters of sulfo acids, 1078
soil deposition tests for, 993
substituted alkyl sulfates, 720
sucrose esters as, 800
α-sulfo fatty acids as, 805
Deuterium tracer studies, of hydrogenation, 432
DHP, prep of, 833
1,2-Diacyl-glycerylphosphorycholine, lecithin synthesis, 465
Diacylphospholipids, of milk, fatty acid comp, 1142
N,N-Dialkylamides, as plasticizers, 941
Dialkyl dimethyl ammonium chloride, evaluation as fabric softener, 1084
Dialkylphosphonates, addition to double bonds, 134
9(10)-Dialkylphosphonostearic acids, prep of, 134
11-Dialkylphosphonoundecanoic acid, prep of, 134
9,9-Dibutoxynonanoic acid, of aldehydic acids, 16
N,N-Dibutylamide, of animal acids, properties of, 941
of cottonseed oil fatty acids, properties of, 941
of hydrogenated cottonseed oil fatty acids, properties of, 941
of *Limnanthes douglasii* oil fatty acids, properties of, 941
of parsley seed oil acids, properties of, 941
of rapeseed oil fatty acids, properties of, 941
N,N-Dibutylepoxystearamide, properties of, 941
N,N-Dibutylerucamide, properties of, 941
N,N-Dibutyl-2-ethylhexanamide, properties of, 941
N,N-Dibutyllinoleamide, properties of, 941
N,N-Dibutylnaphthenamide, properties, 941
N,N-Dibutylneodecanamide, properties of, 941
N,N-Dibutylneotridecanamide, properties of, 941
N,N-Dibutyloleamide, properties of, 941
N,N-Dibutylpalmitamide, properties of, 941
N,N-Dibutylricinoleamide, properties of, 941
N,N-Dibutylstearamide, properties of, 941
Dicarbonyls, in autoxidized methyl linoleate, 420
from autoxidized methyl linoleate, 1110
Dicarboxylic acids, prep of, 457
α-α'-Dicetyl succinic anhydride, analysis of, 2
Dichlorocarbene, reaction with fats and oils, 19
Dichlorocyclopropanes, prep of, 19
9,10-Dichlorooctadecyl sulfate, biodegradation, 189

Dichlorostearic acid, with radiochlorine in metabolism studies, 435
N,N-Didecyloleamide, properties of, 941
Dielectric distribution, separation by, 931
—— separations with, 936
Dienoic acids, conjugated, formation in hydrogenation, 130
Dienoic acids, of rats, effect of diet, 511
Diet, effect of butter and corn oil on erythrocyte lipids, 137
—— effect on erythrocyte lipids, 615
—— effect on fatty acid biosynthesis, 1124, 1130, 1134
—— effect on fatty acids in rats, 511
—— use of peanut-soyflour mixtures, 658
Dietary fatty acids, metabolism, 1124, 1130
Diet carbohydrates, effect on rat liver lipids, 1134
9(10)-Diethylphosphonostearic acid, prep of, 134
Diethylphosphonoundecanoic acid and amide, prep of, 134
Diglyceride acetates, conversion of phosphatides, 298
Diglycerides, analysis by GLC, 269
—— critical solution temp analysis, 372
—— IR spectra, 353
D-α,β-Diglycerides, synthesis, 257
N,N-Diheptyloleamide, properties of, 941
N,N-Dihexyloleamide, properties of, 941
Dihydrosphingosine, analysis of, 294
Cₐₙ-Dihydrosphingosine, analysis of, 294
3-α-12-β-Dihydroxycholanic acid, GLC analysis of, 276
3-β-12-α-Dihydroxycholanic acid, GLC analysis of, 276
Dihydroxy fatty acids, in *Cardamine impatiens* seed oil, 939
Dihydroxystearic acid, GLC analysis of, 81
—— in urethane foams, 553
N,N-Diisobutylolamide, properties of, 941
N,N-Diisopropyloleamides, properties of, 941
Dilatometry, of cocoa butter, 308
—— solids in fats as NMR dtmn, 1075
1,3 and 1,2 Dilaurin, IR spectra, 353
Dilinoleate esters, as lubricants, 792
—— prop of, 792
Dimer acid derivatives, as lubricant, 792
Dimer acids, prep and structures of, 2
—— of rosin, 111
Dimer acid structures, from methyl stearate, 2
Dimer fatty acids, oxidative and thermal, 764
9,9-Dimethoxynonanoic acid derivatives, of aldehydic acids, 16
Dimethylphosphonates, addition to double bonds, 134
9(10)-Dimethylphosphonostearic acid, prep of, 134
11-Dimethylphosphonoundecanoic acid and amide, prep of, 134
Dimethylsulfoxide, use in selective segregation of unsaturated acids, 346
Dimorphecolic acid, dehydration during GLC, 208
—— structure of, 569
Dimorphotheca sinuata seed oil, analysis of, 208
N,N-Dimylolamide, properties of, 941
1,3 and 1,2 Dimyristin, IR spectra of, 353
9(10)-Di(*p*-butyl)-phosphonostearic acid, prep of, 134
11-Di(*p*-butyl)phosphonoundecanoic acid and amides, prep of, 134
9,9-Dioctadecanoxynonanoic acid derivatives, of aldehydic acids, 16
1,2-Dioctylcyclopropene, reaction with Ag NO₃, 899
N,N-Dioctyloleamide, properties, 941
D-α,β-Diolein, synthesis, 257
8(1,3-Dioxolan-2-yl) octanoic acid derivatives, of aldehydic acids, 16
12(1,3-Dioxolan-2-yl) dodecanoic acid derivatives, of aldehydic acids, 16
1,3 and 1,2 Dipalmitin, IR spectra of, 353
1,5-Diphenylcarbohydrazide, dtmn of peroxides with, 920
Diplotaxis acris (Forsk.) Boiss. seed oil, comp of, 817
Diplotaxis catholica DC. seed oil, comp of, 817
Diplotaxis erucoides (L.) DC. seed oil, comp of, 817
Diplotaxis griffithü (H. and T.) Boiss. seed oil, comp of, 817
Diplotaxis siifolia Kunze seed oil, comp of, 817
Diplotaxis virgata DC. seed oil, comp of, 817
Disease, effect on blood lipids, 665
Disodium 2-sulfohexyadecyl sulfate, surface active properties of, 114
Disodium 2-sulfooctadadecyl sulfate, surface active properties of, 114
1,3 and 1,2 Distearin, IR spectra of, 353
Distearyl-dimethyl-ammonium chloride, urea adduct, 337
Distillates, deodorizer, recovery of, 176A
Distillation, process gas chromatograph monitor, 101, 105
—— tall oil by thin film, 96
Di-tertiary-butyl peroxide, in prep of dimer acids, 2
9(10)-Di(2-ethylhexyl)-phosphonostearic acid, prep of, 134
11-Di(2-ethylhexyl) phosphonoundecanoic acid and amide, reactions, 134
Dithyrea californica Harv. seed oil, comp of, 817
Dithyrea wislizenii Engelm. seed oil, comp of, 817
Docosahexaenoic acid, autoxidation, 717
Dodecanedioic acid, prep of, 882
Dodecanol, prep of 2-decyl-2-hydroxymethyl-1,3-propenediol from, 833
***p*-Dodecanol ethoxylates**, colorimetric analysis, 180
cis-3-Dodecenoic acid, synthesis of, 312
trans-3-Dodecenoic acid, synthesis of, 312
Dodecyl benzene sulfonates, miscellar solubilization, 185
Dodecyl-dimethyl-dichlorobenzyl-ammonium chloride, urea adduct, 337
Na-Dodecyl sulfate, detersive properties of, 873
***p*-Dodecyl thiopalmitate**, viscosity of, 25
***p*-Dodecyl thiostearate**, viscosity of, 25
3-Dodecynoic acid, synthesis of, 312
Dog, depot fat glycerides, 446
Dolphin oil, optically active glycerides in, 945
Dotriacontane, GLC analysis, 269
Double bond positions, by oxidative analysis, 130
Double bonds, addition of dialkylphosphonates, 134
—— dtmn by oxidation, 121
—— location of fatty acids, a review, 326
—— position by oxidation, 351
Doxantha unguis-cati, fatty acids of seed oil, 49
Driers, tall oil based, review, 109
Drugs, effect of AY9944 on cholesterol formation, 1018
—— effect on brain cholesterol, 1003
Dry cake discharge, automatic, 44A
Drying, mechanism of oil, 828
Drying oils, tall oil acids, 96

E

Echinocystis lobata No. 1 seed oil, characteristics and fatty acid comp, 891
Echinocystis lobata seeds, oil and protein content, 891
Edible oils, evaluation of rapeseed oil, 78
—— stability test, 30
—— trace elements, 344
Egg phospholipids, extraction of, 53
—— homogeneous lecithin from, 53
Eicosapentaenoic acid, as prostaglandin intermediate, 608
5,11,14,17-Eicosatetraenoic acid, (Arichidonic acid), unsaturated fatty acids in, 504
5,8,11-Eicosatrienoic acid, in rats, 511
Eicosenoic acid, oils containing, 817
8-Eicosenoic acid, in rats, 511
11-Eicosenoic acid methyl esters, ozonolysis of, 236
Elaidic acid, in diet, appearance in rat triglycerides, 1035
—— formation in hydrogenation, 130
—— in lecithin acid interchanges, 465
—— prep of, 73
Elaidic esters, lipase hydrolysis as oleic esters, 1029
Elaidinized peanut oil, effect on rat triglycerides, 1035
Electrical discharge, for modification of fats, 1070
Eleostearic acid, GLC analysis, 208
α-Eleostearic acid, reduction with hydrazine, 43
—— prep of, 43
Enarthrocarpus strangulatus Boiss. seed oil, comp of, 817
Enzyme activity, *Vernonia* seed, 147
Emulsions of fats, particle size, 312
Epidermis, lipids, 691
1,2 Epoxides, analysis, a review, 329
Epoxides, conversion to ketones, 329
Epoxy acids, dtmn in seed oils, 208
—— effect on oilseed analysis, 208
—— in *Helichrysum* oil, 165
—— rearrangement to Keto acids, 126
—— in *Vernonia* seed oil, 147
Epoxy esters, tall oil acids, 96
Epoxy groups, dtmn, a review, 329
Epoxyoleic acid, in *Euphorbiaceae lagascae*, 169
Epoxy resin, film properties of, 23
—— phenolic, coating material, 23
9,10-Epoxystearates, rearrangement of, 126
Equisetum, fatty acid components, 504
Equivalent chain length (ECL), in GLC analysis, 537
Eruca longirostris Uechtr. seed oil, comp of, 817
Erucaria myagroides (L.) Halacsy seed oil, comp of, 817
Erucastrum abyssinicum O.E. Schulz seed oil, comp of, 817
Erucastrum strigosum O.E. Schulz seed oil, comp of, 817
Eruca vesicaria Cav. seed oil, comp of, 817
Erucic acid, metabolism, 516
Erucic acid, oils containing, 817
Erucic acid methyl ester, ozonolysis, 236
Erysimum cuspidatum DC. seed oil, comp of, 817
Erysimum linifolium Gay seed oil, comp of, 817
Erysimum repandum L. seed oil, comp of, 817
Erysimum silvestre (Crantz) Scop. seed oil, comp of, 817
Erythrocyte, lipid metabolism, review, 665
Erythrocyte lipids, effect of diet, 137, 615
Erythro-9,10-dihydroxystearic acid, GLC analysis of, 81
Erythro-9,10,12-trihydroxystearic acid, GLC analysis of, 81
Essential fatty acids (EFA), effect on rats, 511
Esterification, rate of formation of methyl esters, 664
Ester linkage, effect on IR spectra, 353
Estolides, formation and decomposition, 428
—— optical activity, 428
Estran hormones, analysis, 283
Ethanolamides, chain length by GLC, 744
—— conversion to methyl esters for GLC, 744
Ethoxylated alcohols, analysis by P-GC, 1097
—— colorimetric analysis, 180
Ethoxylated alkylphenols, analysis by P-GC, 1097
Ethoxylated dihydroxystearic acid, urethane foams, 553
Ethoxylated nonionics, colorimetric dtmn, 180
Ethoxylated nonylphenols, colorimetric analysis, 180
—— evaluation of detergency, 629
—— detergency evaluation, 449
Ethoxylated octylphenol, dye solubilization, 185
Ethoxylated polypropyleneglycol, micelle formation, 1088
Ethoxylated surfactants, cloud points, 1054
Ethoxylation, of dihydroxystearic acid, 553
Ethylcyanoacetate, free radical addition to unsaturated acids, 457
Ethylene glycol bis-9,10-epoxystearate, rearrangement of, 126
Ethylene oxide adducts, GLC separation of, 69
Ethylhexadecyldimethylammonium bromide, foam fractionation, 174
N,N-Di-2-Ethylhexyloleamide, properties of, 941
2-Ethylhexyl tallate, as plasticizer, 196
Ethyl 2,2-dimethyl-3-(dibutylamino)-carbonyl-cyclo-butaneacetate, properties of, 941
Euphorbiaceae, analysis of 58 species, 169
Euphorbiaceae lagascae Spreng. oil, vernolic acid in oil, 169
Euphorbiaceae lagascae Spreng. oilseed, vernolic acid in oil, 169
Expanded rice bran, solvent extraction, 151
Expander, conditioning rice bran for extraction, 151
Extraction, dtmn of residual hexane from, 62
—— of oil from cottonseed meal, 254
—— of rice bran oil, 151

F

Fabric softeners, evaluation of, 1084
Fat absorption, in pigs, tracer studies, 435
Fat deposition, in pigs, tracer studies, 435
Fat digestion, in pigs, tracer studies, 435
Fat emulsions, particle size, 312
Fats, autoxidized, dtmn of carponyls in, 839
dtm of glyceride comp of, 9
effect of heating on, 763
human, fatty acid comp of, 516
human, triglyceride structure by lipase hydrolysis, 1040
hydrogenated, metabolism, 516
liquid to solid ratio by NMR, 425
modification by electrical discharge, 1070
solids by NMR and dilatometry, 1075
—— in diet, effect on red blood cell phospholipids, 137
—— beef, fatty acid comp of, 516
nutrition study of oxidized, 770
—— butter, analysis of, 305
analysis by GLC, 269
fatty acid comp, 1063
fatty acid comp and interesterification of, 796
—— calf liver, comp of, 862
—— chicken, comparison of experimental and computer distribution, 1032
nutrition study of oxidized, 770
—— liver, comp of, 862
—— milk, fatty acid comp and interesterification of, 796
—— Mowrah, fatty acid and glyceride comp of, 751
—— *Virola surinamensis*, glyceride comp of, 974
—— *Myrica carolinensis*, glyceride comp of, 757
—— pig liver, comp of, 862
—— pork, glyceride structure of, 1121
—— rat liver, comp of, 862
—— sow milk, triglyceride structure by lipase hydrolysis, 1040
—— ucuhuba kernel, glyceride comp of, 974
Fat transport, in pigs, tracer studies, 435
Fatty acid analysis, ultramicro methods, 290
Fatty acid biosynthesis, effect of diet, 1124, 1130
Fatty acid chlorides, prep of, 1060
Fatty acid composition, chicken muscle lipids, 533
—— normal and diseased brain lipids, 411
Fatty acid distillation, monitoring by GLC, 101, 105
Fatty acid ethanolamides, chain length by GLC, 744
Fatty acids, addition of olefins via peroxide catalyst, 233
analysis by GLC, 537
biosynthesis and metabolism, 516
branched chain by olefin addition, 233
chain length by IR, 437
color stability test, 815
conjugated, position of double bonds, 121

continuous and automatic saponification of, 228A
conversion to methyl esters for analysis, 305
critical solution temp analysis, 372
detection of traces in fats, 1063
double bond positions, a review, 326
effect on cold resistance of plants, 1056
hydrogenated, dtmn of double bonds by oxidative analysis, 121
IR analysis of, 353
separation by preparative GLC, 673
solidification behavior of, 1056
—— of aceituno oil, 751
—— of beef and pork reproductive tissues, 540
—— of beef tallow, 141
—— of blood platelets, 500
—— of cell components, 588
—— of Convolvulus tricolor L. seed oils, 814
—— of crayfish, 633
—— of erythrocyte lipids, effect of diet, 615
—— of hydrogenated soybean oil, 727
—— of *Ipomoea alba L.* seed oil, 814
—— of *Ipomoea Nil L.* seed oil, 814
—— of *Impomoea purpurea L.* seed oils, 814
—— of *Ipomoea violacea L.* seed oil, 814
—— of karanja oil, 751
—— of kokum butter, 751
—— of kusum oil, 751
—— of malabar tallow, 751
—— of morning glory seed oil, 814
—— of moss and ferns, 504
—— of mowrah fat, 751
—— of neem oil, 751
—— normal and degenerating sciatic nerve, 492
—— of rats, effect of diet, 511
—— of Rivea corymbosa L. seed oils, 814
—— of skin lipids, 702
—— of tall oil, 193
—— of tissues, a review, 516
Fatty alcohol ethoxylates, colorimetric analysis, 180
Fatty alcohols, analysis in alkyl sulfates, 417
—— critical solution temp analysis, 372
—— GLC separation of ethylene oxide adducts of, 69
—— by hydrogenolysis of fatty acids, 646
—— IR analysis of, 353
—— in skin lipids, 702
Fatty alcohol sulfates, analysis of trace alcohols, 417
Fecal lipids, GLC analysis, 276
Ferns, fatty acid components, 504
Fibigia clypeata (L.) Medik. seed oil, comp of, 817
Filters, pressure leaf, recent developments and improvements, 44A
Fish oil (Anaplopoma fibria), glycerides, 624
Flacourtia indica seed oil, analysis of, 208
Flammable liquids and gases, auto-ignition temperatures, 162A
Flavor, of autoxidized soybean oil, 1148
—— evaluation of rancid oils, 734
—— hydrogenated soybean and linseed oils, 246
Flavor stability, of soybean oil, effect of trace metals, 344
Flavor studies, with oils, 30
Flaxseed, fatty acid comp of, 58
—— free fatty acids in, 58
—— lipid metabolism in germinating, 58
—— phospholipids in, 58
—— triglycerides in, 58
Foam fractionation, effect of temp, 174
Foam fractionation, of ethylhexadecyldimethylammonium bromide, 174
Foods, analysis of antioxidants, 228
—— frying, 878
Forget-me-not seed oil, glycerides of, 965
Formaldehyde, reaction with tall oil acids, 199
Formaldehyde resins, from hydroxyphenylstearic acid, 23
Formamidostearic acid, prep of, 922
ω-Formylalkanoates, by ozonolysis, 236
Fraction collector, preparative GLC, 159
Free radical, addition of phosphonates to double bonds, 134
Free radical additions, to unsaturated acids, 457
Free radicals, by electrical discharge in fats, 1070
Freezing points, of fatty acid mixtures, 1056
Frying, apparatus for laboratory tests, 878
—— carbonyls formed during, 776
—— effects of on cottonseed oil, 782
—— effects of on food, 878
—— effect of moisture on carbonyl formation, 1073
Fungal lipids, of *Phycomyces blakesleeanus, Lipomyces lipoferus, Glomerella cingulata, Coprinus comatus*, 1051

G

Galactosyl diglycerides, of plants, 610
Galeopsis tetrahit seed oil, characteristics and fatty acid comp, 891
Galeopsis tetrahit seeds, oil and protein content, 891
Gangliosides, analysis in lipids, 215
—— analytical separation of, 913
—— long chain bases, 294
—— structure of, 267
Gascardia madagascariensis oil, insect waxes, 72
Gas-liquid chromatography, see Chromatography, gas-liquid
Gaucher's disease, effect on lipid analysis, 290
Gaucher's glugocerebroside, Koenigs-Knorr reaction with acetobromogalactose, 267
Gauging, to measure bulk oil in ships, 155
Geotrichum candidum lipase, specificity for oleic acid, 1029, 1038
Gevuina avellana seed oil, glycerides of, 965
Ginkgo biloba, fatty acid components of, 504
Glomerella congulata, lipids of, 1051
Glucocerebroside, analysis of, 290
Glucosides, synthesis of linseed esters, 1104
Glyceride composition, of beef lipids, 141
Glyceride distribution, in depot fats, 446
Glycerides, analysis by GLC, 269
—— of blood cells, review, 665
—— comp of aceituno oil, 751
—— comp of beef tallow, 754
—— comp of corn oil, 754
—— comp of cottonseed oil, 754
—— comp of karanja oil, 751
—— comp of kokum butter, 751
—— comp of kusum oil, 751
—— comp of lard, 754
—— comp of malabar tallow, 751
—— comp of mowrah fat, 751
—— comp of Myrica carolinensis fat, 757
—— comp of neem oil, 751
—— comp of palm kernel oil, 757
—— comp of palm oil, 757
—— comp of peanut oil, 757
—— dtmn of comp of, 9
—— distribution in seed oils, 965
—— distribution of in tissue, 757
—— GLC method of separation, 849
—— quantitative estimation of, 862
—— research on, 745
—— in seed oils, 957, 961
—— stereochemical analysis of, 945
Glycerolipids, of plants, 610
Glycerolphospholipids, review, 257
Glycerophosphatides, analysis, 298
Glyceryl ethers, critical solution temp analysis, 372
Glycidyl esters, analysis of, 329
Glycidyl ethers, analysis of, 329
Glycidyl stearate, reaction with Lewis acids, 126
Glycolipids, of cow's milk, fatty acid comp of, 1142
Glycolipids, of human eye lens, 742
—— long chain bases, 294
—— of plants, 610
Glyoxal, from autoxidized methyl linoleate, 1110
—— identification in autoxidized linoleate, 420
Gmelina asiatica seed oil, glycerides of, 961
Goldbachia laevigata DC. seed oil, comp of, 817
Gossypol, interference in aflatoxin assay, 471
—— removal from cottonseed meal for animal feeds, 656
—— in swine tissues, 145
Groundnut, See peanut
Gyplure, gypsy moth sex attractants, 681
Gypsophila paniculata seeds, oil and protein content, 891
Gypsy moth, sex attractants, 681

H

Hackelia americanum No. 1[e],2[f] seed oil, characteristics and fatty acid comp, 891
Hackelia americanum seeds, oil and protein content, 891
α-Haloalkylpyridinium halides, prep of, 924
Halphen test, analysis of cyclopropenoid acids, 332
—— modified for cyclopropenoid acids, 422
Hardened oils, flavor components, identification, 246
Heated fats, studies on, 763
—— effect of feeding, 774
—— formation of carbonyls in, 776
Helichrysum bracteatum oilseeds, separation of fatty acids, 165
Helichrysum bracteatum seed oil, separation of fatty acid, 165
—— characterization, 165
Hemp nettle seeds, oil and protein content, 891
***p*-Heptadecyl thiopalmitate**, viscosity of 25
***p*-Heptyl thioacetate**, viscosity of, 25
***p*-Heptyl thiolaurate**, viscosity of, 25
Herring oil, comp of, 845
Hexadecene-1, sulfonation of, 873
Na-Hexadecenesulfonate, detersive properties of, 873
Hexadecenoic acid, selectivity factor for oils containing, 965
cis-9-Hexadecenoic acid, in *Doxantha* oil, 49
4-Hexadecenoic acid, in rats, 511
***p*-Hexadecyl thiolaurate**, viscosity of, 25
***p*-Hexadecyl thiomyristate**, viscosity of, 25
***p*-Hexadecyl thiopalmitate**, viscosity of, 25
***p*-Hexadecyl thiostearate**, viscosity of, 25
Hexane, residual, in soybean flakes, 62
Hexane stripping, packed column efficiency, 1152
Hexylamine, prep of, 824
Hexyl tallate, as plasticizer, 196
***p*-Hexyl thiomyristate**, viscosity of, 25
***p*-Hexyl thiohexanoate**, viscosity of, 25
***p*-Hexyl thiolaurate**, viscosity of, 25
Hormones, steroid by ultramicro chromatography, 283
Hirschfeldia incana (L.) Lagreza-Fossat seed oil, comp of, 817
Hydrazine, reduction of α-eleostearic acid with, 43
Hydrocarbons, critical solution temp analysis, 372
Hydrocarbons, by electrical discharge in fats, 1070
—— GLC on activated alumina, 1058
—— in irradiated beef, 57
—— in tall oil, 193
Hydrogenated coconut oil, in rat diets, 511
Hydrogenated corn oil, in rat diets, 511
Hydrogenated fats, metabolism, 516
Hydrogenated fatty acids, dtmn of double bonds by oxidative analysis, 121
Hydrogenated soybean oil, fatty acid isomers, 727
—— solvent winterization, 738
—— volatile by-products, 85
Hydrogenated tallow alcohol sulfates, biodegradation, 189
Hydrogenation, automatic analytical system, 208
—— cobalt carbonyl as catalyst, 130
—— of cottonseed oil, 556
—— effect of solvents on selectivity, 1150
—— flavor of linseed oil, 246
—— flavor of soybean oil, 246
—— of ozonolysis products, 549
—— with Pentacyanocobaltate catalyst, 432
—— of rapeseed oil, 78
—— of unsaturated fats, 130
Hydrogenation catalyst, reuse, 556
Hydrogenation of glycerides, selectivity, 250
Hydrogenation odor, characterization, 85
Hydrogenation selectivity, with catalyst reuse, 556
Hydrogen iodine value (HIV), analytical method, 208
Hydrogenolysis, of fatty acids to alcohols, 646
Hydrohalogenation, dtmn of epoxides, 329
Hydroperoxides, as aldehyde precursers, 620
—— from hexaenoic acids, 717
—— interference in carbonyl analysis, 743
—— IR dtmn, 353
Hydrotropes, measurement of biodegradation, 1081
Hydroxyacetylenic acid, in *Helichrysum* oil, 165
Hydroxy acids, analytical methods, a review, 321
—— in butter, 857
—— from *Calendula* seed oil, 1119
—— effect on oilseed analysis, 208
—— GLC as trimethyl silyl ethers, 81
—— in *Helichrysum* oil, 165
—— oils containing, 817
—— optical activity, 569
ω-Hydroxy acids, prep of, 882
7-Hydroxy cholesterol, from cholesterol metabolism, 1008
25-Hydroxy cholesterol, from cholesterol metabolism, 1008
10-Hydroxydecanoic acid, prep of, 882
12-Hydroxydecanoic acid, prep of, 882
Hydroxy fatty acids, colorimetric dtmn, 569
—— isolation from lipids, 569
—— review, 569
—— structure dtmn, 569
Na-Hydroxyhexadecanesulfonate, detersive properties of, 873
Na-1-Hydroxy-2-hexadecanesulfonate, detersive properties of, 873
Hydroxyl groups, effect on IR spectra, 353
Hydroxyl value, review of analytical methods, 321
Na-Hydroxyoctadecanesulfonate, detersive properties of, 873
Na-Hydroxy-2-octadecanesulfonate, detersive properties of, 873
Hydroxyphenylstearic acid, resins from, 23
12-Hydroxystearic acid, from methyl ricinoleate, 340
Hydroxystearic acids, GLC analysis of, 81
12-Hydroxystearic acid, GLC analysis of, 81
1-Hydroxy-2-decanone, identification of, 899
D-(+)-9-Hydroxy-10,12-octadecadienoic acid, from *Calendula* seed oil, 1119
2-Hydroxytridecanenitrile, prep of, 841
Hyocholic acid, GLC analysis of, 276
Hyodexycholic acid, GLC analysis of, 276
Hypochlorites, evaluation of bleaching, 118
Human brain lipids, separation of, 913
Human blood cells, lipid metabolism, 665
Human fats, fatty acid comp of, 516
—— triglyceride structure by lipase hydrolysis, 1040

I

Imidazolinium salts, evaluation as fabric softeners, 1084
Infrared absorption, of hydroxy acids, 569
Infrared analysis, of cyclopropenoid acids, 637
Infrared spectra, bands for unusual fatty acids, 208
Infrared spectroscopy, dtmn of fatty chain length, 437
—— of lipids, review, 353
Insect attractant lipids, review, 681
Inspection, equipment, basic, 162A
—— unit safety, guide for, 162A
Instrumental Techniques, AOCS Committee

report, 347
Intestinal mucosa triglycerides, effect of rat diet, 1035
"Intralipid" emulsion, for intravenous feeding, particle size, 312
Iodine value, relation to refractive index of oils, 208
Ipomoea alba L. seed oil, fatty acid comp of, 814
Ipomoea Nil seed oil, fatty acid comp of, 814
Ipomoea purpurea L. seed oil, fatty acid comp of, 814
Ipomoea violacea seed oil, fatty acid comp of, 814
Ironweed seed (Vernonia anthelmintica), solvent extraction, 563
Irradiated beef, hydrocarbons in, 57
Isatis aleppica Scop. seed oil, comp of, 817
Isatis aucheri Boiss. seed oil, comp of, 817
Isolinolenic acid, selectivity factor for oils containing, 965
cis-trans Isomerism, effect on lecithin synthesis, 465
Isomerization, enyne acid to conjugated triene, 243
——*cis* to *trans* by nitrous acid, 73
cis-trans Isomerization, in cobalt carbonyl catalyzed hydrogenation, 130
——by nitrous acid, 73
Isooctyl tallate, as plasticizer, 196
Isothiocyanate, from mustard seed, 33
S-1-Isovalero-dimyristin, optical activity of, 945

K

Karanja oil, fatty acid comp of, 751
——glyceride comp of, 751
Keto acids, analysis by IR and GLC, 126
——analysis as oximes, 126
——by rearrangement of epoxy acids, 126
3-α-7-Ketocholanic acid, GLC analysis, 276
α-Keto heptanal, from autoxidized methyl linoleate, 1110
α-Keto hexanal, from autoxidized methyl linoleate, 1110
7-Keto-lithocholic acid, GLC analysis, 276
α-Keto nonanal, from autoxidized methyl linoleate, 1110
α-Keto octanal, from autoxidized methyl linoleate, 1110
12-Ketostearic acid, synthesis from ricinoleic acid, 340
Kettle Moraine Boy's School, activated sludge process, 867
Kidney, myo-insitol in, 1001
Kinetics, of lipid peroxidation, 908
Kokum butter, fatty acid comp of, 751
——glyceride comp of, 751
Kusum oil, fatty acid comp of, 751
——glyceride comp of, 751
Kwashiorkor, effect of peanut-soyflour mixture, 658

L

Lactones, in butter, 857
Lactosylcphingosine, synthesis, 267
Lamb, depot fat glycerides, 446
Lamb tallow, fatty acid comp, 1121
——glyceride structure, 1121
Lanolin, fatty acid comp, 1063
Lappula echinata seed oil, characteristics and fatty acid comp, 891
Lappula echinata seeds, oil and protein content, 891
Lard, analysis, 305
——autoxidized, carbonyl content, 620
——carbonyl compounds during oxidation, 620
——carbonyls formed in during heating, 776
Lard, fatty acid comp, 9, 776, 1063, 1121
——glyceride comp of, 754
——glycerides of, 9
——glyceride structure, 1121
——reacted with dichlorocarbene, 19
——triglyceride structure by lipase hydrolysis, 1040
——triglyceride structure by TLC, 87
Larkspur seeds, oil and protein content, 891
LAS, see linear alkylate sulfonates
Laundry detergents, soil deposition tests for, 993
Laundry products, detergency evaluations, 723
R-1-Lauro-dibutyrin, optical activity of, 945
1-Lauro-dipalmitin, x-ray diffraction data, 945
R-1-Lauro-dipalmitin, optical activity of, 945
S-1-Lauro-dipalmitin, optical activity of, 945
Lauryl alcohol, dtmn in lauryl sulfate, 417
Lauryl pyridinium chloride, IR spectra, 924
Lauryl sulfate, dtmn of lauryl alcohol, 417
Leavenworthia tortulosa Gray seed oil, comp of, 817
Lecithin, analysis of 290
——analysis in lipids, 215
——of blood cells, review, 665
——chicken muscle, 533
——conversion to diglyceride acetates, 298
——of cow's milk, 1142
——effect of heat and air on, 53
——egg, analysis, 298
——from egg phospholipids, 53
——in erythrocytes, 615
——fatty acid distribution, a review, 516
——fatty comp normal and diseased brain, 411
——human serum, analysis, 298
——IR spectra, 353
——L-α-glycerylphosphorylcholine synthesis, 257
——in mitochondria and microsomes, 588
——in nerve lipids, 492
——ox brain, analysis, 298
——of plants, 610
——from pork muscle tissue, 45
——in red blood cells, 137
——synthesis, 465
——TLC analysis, 381
Lepidium densiflorum Schrad. seed oil, comp of, 817
Lepidium draba L. seed oil, comp of, 817
Lepidium graminifolium L. seed oil, comp of, 817
Lepidium latifolium L. seed oil, comp of, 817
Lepidium perfoliatum L. seed oil, comp of, 817
Lepidium repens Boiss. seed oil, comp of, 817
Lesquerella densipila seed oil, analysis of, 321
Lesquerella fendleri seed oil, analysis of, 208
Lesquerella lyrata Rollins seed oil, comp of, 817
Lesquerella perforata Rollins seed oil, comp of, 817
Lesquerella recurvata (Engelm.) Wats. seed oil, comp of, 817
Lesquerella stonensis seed oil, analysis of, 208
Lesquerella stonensis Rollins seed oil, comp of, 817
Lesquerolic acid, alkaline cleavage of, 882
Light exposure apparatus, for oil stability, 30
Light test, stability of oils by, 30
Limnanthes douglasii seed oil, analysis of, 208
Linear alkylate sulfonates (LAS), biodegradation, 627
——dtmn of biodegradability of, 986
——removal by active sludge process, 867
Linear alkylbenzene sulfonates (LAS), analysis by P-GC, 1097
——neutral oil content, 1091
Linear alkyl sulfonates (LAS), biodegradation, 189
Linoleate esters, hydrogenation, 130
Linoleic acids, dicarbonyls via autoxidation, 1110
——freezing points in mixed fatty acids, 1056
——isomers in rat, 511
——metabolism, 580
——metabolism with labeled acetate, 639
——oxidative analysis, 121
——radio-labeled, 583
——selectivity factor for oils containing, 965
——solvent separation from oleic acid, 346
——volatile autoxidation products, 1112
Linoleic acid-methyl ester, ozonolysis, 236
trans-Linolein, effects of ingestion of on liver and serum lipids, 843
Linolenate esters, hydrogenation, 130
——selective hydrogenation, 1150
Linolenic acid, conversion to cyclic acids, 643
——effect of solvent on hydrogenation selectivity, 1150
——effect on soybean oil flavor, 736
——freezing points in mixed fatty acids, 1056
——metabolism, 580
——metabolism with labeled acetate, 639
——oxidative analysis, 121
——as prostaglandin intermediate, 608
——radiolabeled, 583
——selectivity factor for oils containing, 965
——synthesis of cyclic acids, 1115
Linolenic acid methyl ester, ozonolysis, 236
Linoleoyl chloride, prep, 1060
Linseed acid chlorides, prep, 1060
Linseed esters, of methyl α-D-glucopyranoside, 1104
Linseed glucosides, synthesis, 1104
Linseed oil, carbonyls in oxidized, 839
——comp of, 58
——comparison of experimental and computer distribution, 1032
——conversion to cyclic acids, 1115
——cyclic alcohols from, 876
——flavor components after hydrogenation, 246
——glycerides of, 957, 965
——glyceride comp of, 970
——hydrogenation selectivity, 1150
——ozonolysis of methyl esters, 14
——selectivity of hydrogenation, 250
Lipase, from *geotrichum candidum,* specificity for oleic acid, 1029
——pancreatic, glyceride hydrolysis, 1029
Lipase activity, inhibition by aldehydes, 821
——of peanuts, effect of radiation, 617
——in *Vernonia* seed, 147
Lipase hydrolysis, in triglyceride analysis, 446
Lipases, microbial for study of glyceride structure, 1038
Lipid analysis, ultramicro chromatography, 283, 290
Lipid metabolism, radiochlorine tracer studies, 435
——use of human blood cells, study in, 665
Lipid peroxidation, kinetics, 908
Lipids, analysis by TLC, a review, 381, 393
——in blood coagulation, 500
——characterization by critical solution temp (CST), 372
——dtmn of phosphorus in, 1002
——of human eye lens, 742
——infrared spectroscopy, review, 353
——as insect attractants, review, 681
——nerve and brain, 492
——peroxidation *in vivo,* 908
——review of skin, 685, 691, 702, 708
——of subcellular particles, review, 588
——tracer studies of metabolism, 639
——from wheat flour doughs, 652
Lipid separation, on sephadex columns, 913
Lipids in meteorites, sulfur determination, 475
Lipids in serum, analysis by direct application of serum to TLC plates, 1154
Lipids of crayfish, fatty acid comp, 633
Lipids of erythrocytes, effect of diet, 615
Lipids of fungi, of *Phycomyces blakesleeanus, Lipomyces lipoferus, Glomerella cingulata, Caprinus comatus,* 1051
Lipids of plants, review, 610
"Lipofundin" emulsion, for intravenous feeding, particle size, 312
Lipolytic activity, in *Vernonia* seed, 147
Lipolytic enzymes, in rice bran, 151
Lipomyces lipoferus, lipids of, 1051
Lipoproteins, IR spectra, 353
——review on myelin structure, 481
Lipositol, of plants, 610
Literature Review, Part I, 364A
——Part II, 432A
——Part III, 508A
——Part IV, 582A
——Part V, 638A
——1965, Part VI, 700A
Lithocholic acid, GLC analysis, 276
Liver cholesterol, biosynthesis, 1018
Liver fats, comp of, 862
——glyceride distribution, 446
Liver lipids, in animals, a review, 516
Lubricants, based on esters of saturated cyclic acids, 643
——dilinoleate esters as, 792
Lunaria rediviva L. seed oil, comp of, 817
Lymph triglycerides, effect of rat diet, 1035
Lysolecithin, of blood cells, review, 665
——in myelin turnover radiolabeling, 1013
——in nerve lipids, 492

M

Macadamia nut oil, fatty acid comp, 1029
——lipase hydrolysis, 1029
Macadamia ternifolia seed oil, glycerides of, 961
Madhuca latifolia seed oil, glycerides of, 961
Maize seed oil, glycerides of, 961
Malabar tallow, fatty acid comp of, 751
Malabar tallow, glyceride comp of, 751
Malcomia africana (L.) R. Br. seed oil, comp of, 817
Malcomia cabulica Hook. F. and Thoms. seed oil, comp of, 817
Malonaldehyde acetals, prep of, 14
Malvalic acid, analysis, 332
——analysis for cyclopropenoid acids, 637
——in cottonseed oil fractions by successive extraction, 173
——GLC analysis, 208
Maple-leaved goosefoot seeds, oil and protein content, 891
Margarine fatty acid comp, 1029
——lipase hydrolysis, 1029
——worksoftening of, 27
Marine oils, identification of fatty acids in, 845
Mass spectrum, of dehydrostearate dimer, 2
——dimer ester of cyclic anhydride, 2
Matthiola longipetala DC. seed oil, comp of, 817
Matthiola tristis R. Br. seed oil, comp of, 817
Meal, cottonseed, oil fixation, 254
——in rabbit feeds, 656
Meal, Crambe, amino acid comp of, 550A
Meal, mustard, effect of heat treatment on, 33
——isothiocyanate from, 33
——nutritional evaluation of, 33
——protein of, 33
——toxicology of, 33
Meat Inspection Div., ARS, chemical requirements, 4A
Melting points, of propyleneglycol monoesters, 529
Menhaden muscle, phospholipids in, 887
Menhaden oil, bleaching, 561
——fatty acid comp, 516
——GLC analysis by AOCS subcommittee, 347
——molecular distillation, 561
——reacted with dichlorocarbene, 19
Mentzelia lindleyi seeds, oil and protein content, 891
Mentzelia lindleyi No. 1 seed oil, characteristics and fatty acid comp, 891
Metabolism, of fatty acids, a review, 516
——of polyunsaturated acids, 580
——of polyunsaturated acids, 639
Metachromatic leucodystrophy, effect on brain lipids, 404, 411
Metal soaps, chromium analysis, 451, 454
Metering, to measure bulk oil in ships, 155
Methoxy hydroperoxides, in ozonization, 549
9-Methoxymethyl-9-octadecene, identification of, 899
Methyl 9-aminononanoate, from caproaldehyde, 824
Methyl azelaaldehyde, prep of, 14
Methyl azelaaldehydate, from methyl esters, 236
N-Methyl cephalins, synthesis, 257
Methyl cis-9, cis-11-octadecadienoates, 5
Methyl-cis-9-octadecen-12-ynoate, methyl crepenynate, 243
Methyl crepenynate, alkaline isomerization, 243

Methyl 9,10,12,13-diepoxystearate, rearrangement, 126
cis and trans-3,4-Methylene dodecenoic acid, synthesis, formation in rat metabolism of 9,10-methylene octadecenoic acid, 312
cis-9,10-Methylene octadecanoic acid, synthesis, metabolism, 312
trans-9,10-Methylene octadecanoic acid, synthesis, metabolism, 312
9-Methylene-10-octadecanone, identification of, 899
Methyl-9,10-epoxystearate, rearrangement, 126
Methyl erucate, ozonolysis, 236
Methyl esters, critical solution temp analysis, 372
—of fatty acids, prep for analysis, 305
—GLC analytical accuracy, 786
—ozonolysis of, 14
—prep from ethanolamides, 744
—prep, 290, 294, 305
—prep by pyrolysis of tetramethylammonium salts, 255
—rate of fatty acid esterification ion, 664
Methyl esters for GLC, review of prep methods, 347
Methyl 12-formyldodecanoate, by ozonolysis, 236
Methyl 8-formyloctanoate, ozonolysis of methyl oleate, 236
Methyl glucoside, linseed esters synthesis, 1104
Methyl glyoxal, from autoxidized methyl linoleate, 1110
—identification in autoxidized linoleate, 420
Methyl-12-keto oleate, synthesis, 340
Methyl 12 ketostearate, synthesis, 340
Methyl laurate, analysis of IR bands, 353
Methyl linoleate, autoxidized dicarbonyl content, 420
—carbonyls in oxidized, 839
—dicarbonyls vin autoxidation, 1110
—drying of, 824
—oxidation of, 764
—ozonolysis, 236
—volatile autoxidation products, 1112
Methyl linolenate, carbonyls in oxidized, 839
—ozonolysis, 236
Methyl malvalate, prep of, 885
Methyl myristate, carbonyls in oxidized, 839
Methyl nonynoates, GLC analysis, 1102
Methyl oleate, autoxidized, 839
—carbonyls in autoxidized, 839
—free radical addition of acetic acid and ethyl cyanoacetate, 457
—irradiation of, 57
—nitrosyl chloride adduct, 713
—ozonolysis, 236, 549
—ozonization of, 16, 894
—prep of pyridinium quaternaries from, 924
Methyl parathion, effect of on liver lipids, 864
14-Methyl-9,12-pentadecadienoic acid, from silkworm moth, 681
Methyl ricinoleate, conversion to 12-ketostearate, 340
—geometric isomers of conjugated octadecadienoates from dehydrated, 5
3-*O*-Methyl sphingosine, formation in lipid analysis, 294
Methyl stearate, dehydro-dimer from, 2
Methyl sterculate, reaction with Ag NO_3, 899
Methyl tallate, as plasticizer, 196
Methyl-7-tridecyloxyacetate, prep of, 65
Microbial lipases, use in study of glyceride structure, 1038
Microsisymbrium lasiophyllum (Hook. and Arn.) O.E. Schulz seed oil, comp of, 817
Microsomes, lipids of, 588
Milk fat, interesterification of, 796
—fatty acid comp, 796
Milk lipids, distribution of fatty acids, 1142
Miscellar solubilization, of dyes by detergents, 185
Miscella stripping, effect of packed column, 1152
Mitochondria, lipids of, 588
—lipid turnover, 1013
Moldavica parviflora seeds, oil and protein content, 891
Moldavica parviflora seed oil, characteristics and fatty acid comp, 891
Molecular distillation, of menhaden oil, 561
Momordica balsamina seed oil, glycerides of, 965
Monoarichidin, phase behavior with water, 1068
Monobehenin, phase behavior with water, 1068
Monocaprin, by GLC analysis, 161
—IR spectra, 353
Monoelaidin, phase behavior with water, 1068
Monoenoic acids, of rats, effect of diet, 511
Monoerucin, phase behavior with water, 1068
Monoglycerides, analysis as trimethylsilyl ethers, 161
—analysis by GLC, 269
—comparison with propleneglycol monoesters, 529
—critical solution temp analysis, 372
—IR spectra, 353
—phase behavior with water, 1068
—TLC estimation of, 789
1-and 2-Monoglycerides, differentiation in GLC analysis, 161
Monolaurin, by GLC analysis, 161
—IR spectra, 353
—phase behavior with water, 1068
Monolinolein, phase behavior with water, 1068
Monomeric dihydroperoxides, from polyunsaturated oils, 717
Monomyristin, by GLC analysis, 161
—IR spectra, 353
—phase behavior with water, 1068
Monoolein, by GLC analysis, 161
—IR spectra, 353
—phase behavior with water, 1068
Monopalmitin, by GLC analysis, 161
—IR spectra, 353
—phase behavior with water, 1068
Monostearin, by GLC analysis, 161
—IR spectra, 353
—phase behavior with water, 1068
Moricandia arvensis DC. seed oil, comp of, 817
Moricandia baetica Boiss. seed oil, comp of, 817
Moricandia foetida Bourg. seed oil, comp of, 817
Morning glory seed oil, fatty acid comp of, 814
—glycerides of, 965
Mosses, fatty acid components, 504
Mowrah butter oil, glycerides of, 961
Mowrah fat, fatty acid comp of, 751
—glyceride comp of, 751
Muscle lipids, of chicken, 533
Muscular dystrophy, effect on brain cholesterol, 1003
Mustard meal, effect of heat treatment on, 33
—isothiocyanate from, 33
—nutritional evaluation of, 33
—protein of, 33
—toxicology of, 33
Mustard seed, essential oil recovery, 33
—pilot and commercial processing, 33
—protein quality, 33
—pungent factor of, 33
Mustard seed oil, flavor and oxidative stability of, 811
Mycotoxins, USDA research on, 466A
Myelin, lipid turnover by radioactive tracers, 1013
Myelin membranes, a review, 475
Myo-insitol, dtmn of, 1001
Myrica carolinensis fat, glyceride comp of, 747, 757
—variations in comp of, 757
Myristate, effect on plasma cholesterol, 1155
R-1-Myristo-dibutyrin, optical activity of, 945
S-1-Myristo-dibutyrin, optical activity of, 945
S-1-Myristo-diisolvalerin, optical activity of, 945

N

Nasturtiopsis arabica Boiss. seed oil, comp of, 817
Neem oil, fatty acid comp of, 751
—glyceride comp of, 751
Nerve lipids, peripheral nerve, 492
Neslia paniculata Desv. seed oil, comp of, 817
Neutral oil, in LAS surfactants, 1091
—modifications of AOCS Method, 160
Nickel hydrogenation catalyst, effect of reuse, 556
Nieman-Pick disease, effect on brain lipids, 404, 411
Nitromethane, selective solubility of fatty acids in, 845
Nitrosyl chloride, adduct of methyl oleate, 713
Nitrous acid, isomerization of oleic acid, 73
Nodding stickweed seeds, oil and protein content, 891
Nonenals, 4,5 and 6 isomers, synthesis, 246
—possible identity as hydrogenation flavor, 246
Nonionic detergents, dtmn of biodegradability of, 983
Nonionic surfactants, cloud points, 1054
—colormetric dtmn, 180
—micelle formation, 1088
Nonylamine, prep of, 824
Nonylphenol ethoxylates, colorimetric analysis, 180
***p*-Nonyl thiopalmitate,** viscosity, 25
***p*-Nonyl thiostearate,** viscosity, 25
Nonynoic acids, GLC analysis, 1102
2,3,4,5,6,7 and 8-Nonynoic acids, synthesis, 1102
Nuclear magnetic resonance (NMR), analysis of fatty acids, 208
—liquid-solid ratios in chocolate, 425
—solids dtmn in fats, 1075
Nutrition, of peanut-soyflour based mixture, 658
Nutritional study, of oxidized fats, 770

O

Octadecadienoates, conjugated, 5
—from dehydrated methyl ricinoleate, 5
—geometric isomers of, 5
—*trans, trans,* 5
5,8-Octadecadienoic acid, in rats, 511
6,9-Octadecadienoic acid, in rats, 511
8,11-Octadecadienoic acids, in rats, 511
Octadecatrienoic acid, from *calea urticaefolia,* 50
8,10,12-Octadecatrienoic acid, by isomerization, 243
trans-3, cis-9-12-Octadecatrienoic acid, from *calea urticaefolia,* 50
cis-9-Octadecen-12-ynoic acid, isomerization, 243
Octadecene-1, sulfonation of, 873
1-Octadecene, prep of pyridinium quaternaries from, 924
Na-Octadecenesulfonate, detersive properties of, 873
6-Octadecenoic acid, reactions of, 922
cis-8-Octadecenoic acid, evidence for natural occurrence, 351
cis-11-Octadecenoic acid, in *Doxantha* oil, 49
Na-Octadecyl sulfate, detersive properties of, 873
Octadecyl sulfides, TLC analysis, 475
***p*-Octadecyl thiolaurate,** viscosity, 25
***p*-Octadecyl thiomyristate,** viscosity, 25
***p*-Octadecyl thiopalmitate,** viscosity, 25
***p*-Octadecyl thiostearate,** viscosity, 25
***p*-Octyl thiomyristate,** viscosity, 25
Octylphenol ethoxylate, dye solubilization, 185
Oenothera biennis seed oil, glycerides of, 965
Oenothera crocata seed oil, glycerides of, 965
Oenothera macrocarpa seed oil, glycerides of, 965
Oenothera missouriensis seed oil, glycerides of 965
Oenothera tetraptera seed oil, glycerides of, 965
Oil determination, in cottonseed meal, 254
Oils autoxidized, flavor evaluation, 734
—bulk, dtmn of weight, 155
—chlorination of, 19
—edible, stability test, 30
—flavor studies with, 30
—hydrogenation in dimethylformamide, 1150
—neutral, in LAS surfactants, 1091
—oxidized, flavor evaluation, 734
—seed, effect of unusual acids on analysis, 208
—vegetable, flavor evaluation, 734
—Aceituno, fatty acid and glyceride comp of, 751
—aldehyde, derivatives of, 835
—prep of, 835
—properties of, 835
—reaction of, with amines, 835
—*Bombax oleagineum,* analysis of, 208
—butter, triglycerides of, 978
—*calea urticaefolia,* comp of, 50
—an analysis of, 208
—*Calendula officinalis,* analysis of, 208
—hydroxy acid, 1119
—candlenut, glycerides of, 957
—caster, estolides, 428
—GLC analysis, 81
—coconut, analysis, 305
—effect of feeding heated, 774
—effects of ingestion of on liver and serum lipids, 843
—GLC analysis, 269
—GLC analysis of FA as monoglycerides, 161
—hydrogenated, in rat diets, 511
—cod liver, fatty acids as reference standards in GLC, 38
—fatty acid comp, 1029
—fatty acids of, 38
—lipase hydrolysis, 1029
—corn, analysis, 305
—biosynthesis of cholesterol, 903
—carbonyls formed in during heating, 776
—carbonyls in oxidized, 839
—comp of commercial, US and world, 90
—effects of deep frying in, 878
—effect on red blood cell lipids, 615
—fatty acid comp, 776
—flavor evaluation, 734
—glycerides of, 961
—glyceride comp of, 754
—hydrogenated, in rat diets, 511
—triglyceride structure by TLC, 87
—cottonseed, cyclopropenoid acids, 173
—detection of in olive oil, 815
—dtmn of cyclopropenoid acid, 422
—effect of continuous heating on, 782
—effect of moisture on carbonyls during heating, 1073
—fatty acid comp, 9
—flavor evaluation, 734
—frying in, 782
—glycerides of, 9, 961
—glyceride comp of, 754
—hydrogenation with reused catalyst, 556
—isomerization by nitrous acid, 73
—nutrition study of oxidized, 770
—selectivity of hydrogenation, 250
—stability test, 30
—*Crambe,* comp of, 550A
—stability of, 550A
—*Crepis foetida, L.,* analysis of, 208
—UV and GLC analysis of, 243
—*Cuphea carthagenensis,* analysis of, 208
—*Cuphea llavea,* analysis of, 208
—*Cuphea painteri,* analysis of, 208
—*Delphinua delpis ponticus,* optically active glycerides from, 945
—*Dimorphotheca sinuata,* analysis of, 208
—dolphin, optically active glycerides in, 945
—*Doxantha unguis-cati,* fatty acids of seed oil, 49
—cis-9-hexadecenoic acid in, 49
—*Euphorbiaceae lagascae Spreng.,* vernolic acid in, 169
—*Flacourtia indica,* analysis of, 208

Gacardia madagascariensis, insect waxes, 72
Helichrysum bracteatum, separation of fatty acids, 165
herring, comp of, 845
karanja, fatty acid and glyceride comp of, 751
kusum, fatty acid and glyceride comp of, 751
Lesquerella fendleri, analysis of, 208
Lesquerella stonensis, analysis of, 208
Limnanthes douglasii, analysis of, 208
linseed, carbonyls in oxidized, 839
comparison of experimental and computer distribution, 1032
comp of, 58
conversion to cyclic acids, 643
conversion to cyclic acids, 1115
cyclic alcohols from, 876
flavor components after hydrogenation, 246
glyceride comp of, 970
glycerides of, 957, 965
hydrogenation selectivity, 1150
ozonolysis of methyl esters, 14
selectivity of hydrogenation, 250
macadamia nut, fatty acid comp, 1029
lipase hydrolysis, 1029
marine, identification of fatty acids in, 845
menhaden, bleaching, 561
fatty acid comp, 516
GLC aanlysis by AOCS subcommittee, 347
molecular distillation, 561
reacted with dichlorocarbene, 19
mowrah butter, glycerides of, 961
neem, fatty acid and glyceride comp of, 751
olive, carbonyls in oxidized, 839
detection of adulteration, 815
IR spectra, 19
nutrition study of oxidized, 770
reacted with dichlorocarbene, 19
palm, fatty acid comp, 1029
fatty acid and glyceride comp of, 757
lipase hydrolysis, 1029
peanut, effect of feeding heated, 774
elaidinized, effect on rat triglycerides, 1035
fatty acid comp, 9, 1029
GLC analysis by AOCS subcommittee, 347
glyceride comp of, 757
glycerides of, 9, 961
lipase hydrolysis, 1029
selectivity of hydrogenation, 250
variations in comp of, 757
Penstemon spectabilis, analysis of, 208
Pistacia Lentiscus L., comp of, 1
Pistacia Terebinthus L., comp of, 1
rapeseed, chlorophyll and carotene content, 781
evaluation as edible oil, 78
fatty acid comp, 78
flavor and oxidative stability of, 811
sable fish, fatty acid comp, 624, 1046
triglyceride structure, 1046
safflower, carbonyls in oxidized, 839
effects of ingestion of on liver and serum lipids, 843
fatty acid comp, 1029
flavor evaluation, 734
hydrogenation selectivity, 1150
lipase hydrolysis, 1029
ozonolysis of methyl esters, 14
reacted with dichlorocarbene, 19
stability test, 30
seal, fatty acid comp, 516
sesame, effect of feeding heated, 774
soybean, aldehyde oils from, 835
analysis, 305
autoxidized, flavor, 1148
cyclic alcohols from, 876
desolventizing in packed columns, 1152
detection of in olive oil, 815
dielectric distribution separation by, 931
fatty acid comp, 9
fatty acids in commercially hydrogenated, 727
flavor and oxidative stability of, 811
flavor components after hydrogenation, 246
flavor evaluation, 734, 736
flavor stability, effect of trace elements, 344
flavor when autoxidized, 1148
glycerides of, 9, 957
hydrogenated, fatty acid isomers, 727
identification of oxidation flavor, 1148
prep of amines from, 824
solvent winterization of hydrogenated oil, 738
HW, stability of, 30
selectivity of hydrogenation, 250
stability test, 30
trace elements, 344
volatile by-products in hydrogenation of autoxidized oil, 85
Sterculia foetida, analysis of, 208
analysis for cyclopropenoid acids, 637
methyl esters, 899
strawflower (*Helichrysum bracteatum*), separation of fatty acids, 165
Sumatra palm, fatty acid comp, 9
glycerides of, 9
Symphytum officionale, analysis of, 208
tall, acids in coating, 96
alkyds, urethanes, epoxy esters, 96
analysis of crude, 193
effect of wood age on yield, 202
formaldehyde derivatives as plasticizers, 199
processing, 193
processing by thin film stills, 96
Thalictrum polycarpum, analysis of, 208
tung, effect of ingestion of on liver and serum lipids, 843
glycerides of, 965
reacted with dichlorocarbene, 19
turtle, analysis of, 38
Vernonia, by solvent extraction, 563
Vernonia anthelmintica, analysis of, 208
storage and epoxy content, 147
walnut, fatty acid comp, 1063
wild rose, glycerides of, 957
Oilseeds, *Alyssoides utriculatum* (L.) Med. comp of, 817
Alyssum argenteum Vitm., comp of, 817
Alyssum campestre L., comp of, 817
Alyssum condellatum Boiss., comp of, 817
Alyssum dasycarpum Steph., comp of, 817
Alyssum desertorum Stapf., comp of, 817
Alyssum minimum Willd., comp of, 817
Alyssum murale Waldst. and Kit., comp of, 817
Alyssum tortuosum Rupr., comp of, 817
American dragonhead, oil and protein content, 891
Anchusa azurea, glycerides of, 965
Arabidopsis thaliana Schur, comp of, 817
Arabis glabra (L.) Bernh., comp of, 817
Arabis hirsuta (L.) Scop ssp. *hirsuta*, comp of, 817
Arabis laevigata (Muhl.) Poir, comp of, 817
Argemone Mexicana, glycerides of, 961
Artimisia biennis, characteristics and fatty fatty acid comp, 891
oil and protein content, 891
Atriplex hortensis, oil and protein content, 891
Axyris amaranthoides, oil and protein content, 891
Baby's breath, oil and protein content, 891
Balloon flower, oil and protein content, 891
Barbarea vulgaris R. Br., comp of, 817
Biennial wormwood, oil and protein content, 891
blue bur, glycerides of, 965
oil and protein content, 891
Bombacopsis glabra, glycerides of, 965
borage, glycerides of, 965
Boreava orientalis Jaub et Sp., comp of, 817
Brassica adpressa Bioss., comp of, 817
Brassica tournefortii Gouan., comp of, 817
Cakile maritima Scop., comp of, 817
calea urticaefolia, 50
Calendula officinalis, glycerides of, 965
Camelina microcarpa Andrz., comp of, 817
Camelina rumelica Velen., comp of, 817
Campanula rapunculoides, characteristics and fatty acid comp, 891
mum, oil and protein content, 891
Cardamine hirsuta L., comp of, 817
Cardamine impatiens L., comp of, 817, 939
dihydroxy acids in, 817
Carrichtera annua (L.) Asch., comp of, 817
Catalpa bignonoides, glycerides of, 965
Caulanthus inflatus Wats, comp of, 817
Chenopodium hybridum var. *gigantosperm mum*, oil and protein content, 891
Chenopodium rubrum, oil and protein content, 891
Common tickseeds, oil and protein content, 891
Conringia orientalis (L.) Dum.-Cours., comp of, 817
Conringia planisiliqua Fisch. and May, comp of, 817
Convolvulus tricolor L., fatty acid comp of, 814
Corcopsis drummondii, characteristics and fatty acid comp, 891
oil and protein content, 891
Coreopsis tinctoria, characteristics and fatty acid comp, 891
oil and protein content, 891
Coronopus didymus (L.) Sm., comp of, 817
Cow cockle, oil and protein content, 891
Crambe, thioglucoside content of, 550A
crambe abyssinica, flavor and oxidative stability of, 811
dtmn of thioglucosides in, 889
processing of, 550A
Crambe cordifolia Stev., comp of, 817
Crambe hispanica L., comp of, 817
Crambe orientalis L., comp of, 817
Crambe tatarica Jacq., comp of, 817
Cruciferae, comp of, 817
Delphinium ajacis, characteristics and fatty acid comp, 891
oil and protein content, 891
Descurainia pinnata (Walt.) Britt. var. *pinnata*, comp of, 817
Diplotaxis acris (Forsk.) Boiss., comp of, 817
Diplotaxis catholica DC., comp of, 817
Diplotaxis erucoides (L.) DC., comp of, 817
Diplotaxis griffithu (H. and T.) Boiss., comp of, 817
Diplotaxis siifolia Kunze, comp of, 817
Diplotaxis virgata DC., comp of, 817
Dithyrea californica Harv., comp of, 817
Dithyrea wislizenii Engelm., comp of, 817
Doxantha unguis-cati, fatty acids of, 49
Echinocystis lobata, oil and protein content, 891
Echinocystis lobata No. 1[e], characteristics and fatty acid comp, 891
Enarthrocarpus strangulatus Boiss., comp of, 817
Eruca longirostris Uechtr., comp of, 817
Eruca vesicaria Cav., comp of, 817
Erucaria hyagroides (L.) Halacsy, comp of, 817
Erucastrum abyssinicum O. E. Schulz, comp of, 817
Erucastrum strigosum O. E. Schulz, comp of, 817
Erysimum cuspidatum DC., comp of, 817
Erysimum linifolium Gay, comp of, 817
Erysimum repandum L., comp of, 817
Erysimum silvestre (Crantz) Scop., comp of, 817
Euphorbiaceae lagascae Spreng., vernolic acid in oil 169
Fibigia clypeata (L.) medik, comp of, 817
flax, fatty acid comp of, 58
free fatty acids in, 58
lipid metabolism in germinating, 58
phospholipids in, 58
triglycerides in, 58
forget-me-not, glycerides of, 965
Galeopsis tetrahit, characteristics and fatty acid comp, 891
oil and protein content, 891
Geuvina avellana, glycerides of, 965
Gimelina asiatica, glycerides of, 961
Goldbachia laevigata DC., comp of, 817
Gypsophila paniculata, oil and protein content, 891
Hackelia americanum, oil and protein content, 891
Hackelia americanum No. 1[e], 2[f], characteristics and fatty acid comp, 891
Helichrysum bracteatum, separation of fatty acids, 165
Hirschfeldia incana (L.) Lagreza-Fossat, comp of, 817
Hemp nettle, oil and protein content, 891
Ipomoea alba L., fatty acid comp of, 814
Ipomoea Nill, fatty acid comp of, 814
Ipomoea purpurea L., fatty acid comp of, 814
Ipomoea violacea L., fatty acid comp of, 814
Ironweed, solvent extraction, 563
Isatis aleppica Scop, comp of, 817
Isatis aucheri Boiss., comp of, 817
Lappula echinata, characteristics and fatty acid comp, 891
oil and protein content, 891
Larkspur, oil and protein content, 891
Leavenworthia torulosa Gray, comp of, 817
Lepidium densiflorum Schrad, comp of, 817
Lepidium draba L., comp of, 817
Lepidium graminifolium L., comp of, 817
Lepidium latifolium L., comp of, 817
Lepidium perfoliatum L., comp of, 817
Lepidium repens Boiss., comp of, 817
Lesquerella lyrata Rollins, comp of, 817
Lesquerella perforata Rollins, comp of, 817
Lesquerella recurvata (Engelm.) Wats., comp of, 817
Lesquerella stonensis Rollins, comp of, 817
Lunaria rediviva L., comp of, 817
Macadamia ternifolia, glycerides of, 961
Madahuca latifolia, glycerides of, 961
maize, glycerides of, 961
Malcamia africana (L.) R. Br., comp of, 817
Malcamia cabulica Hook. f. and Thoms, comp of, 817
Maple-leaved goosefoot, oil and protein content, 891
Matthiola longipetala DC., comp of, 817
Matthiola tristis R. Br., comp of, 817
Mentzelia lindleyi, oil and protein content, 891
Mentzelia lindleyi No. 1[e], characteristics and fatty acid comp, 891
Microsisymbrium lasiophyllum (Hook. and Arn.), comp of, 817
Moldavica parviflora, characteristics and fatty acid comp, 891
oil and protein content, 891
Moricandia arvensis DC., comp of, 817
Moricandia baetica Boiss., comp of, 817
Moricandia foetida Bourg., comp of, 817
morning glory, fatty acid comp of, 814
glycerides of, 965
Marmordica balsamina, glycerides of, 965
mustard, flavor and oxidative stability of, 811
pilot and commercial processing, 33
protein quality, 33

pungent factor of, 33
essential oil recovery, 33
Nasturtiopsis arabica Boiss., comp of, 817
Neslia paniculata Desv., comp of, 817
Nodding stickweed, oil and protein content, 891
Oenothera biennis, glycerides of, 965
Oenothera crocata, glycerides of, 965
Oenothera macrocarpa, glycerides of, 965
Oenothera missouriensis, glycerides of, 965
Oenothera tetraptera, glycerides of, 965
parsley, petroselinic acid from, 922
Peltaria angustifolia DC., comp of, 817
Pendulina lagascana Willk., comp of, 817
Pistacia, refining loss, 149
Pistacia Lentiscus L., composition of, 1
Pistacia Terebinthus L., compostion of, 1
Platycodon grandiflora, characteristics and fatty acid comp, 891
oil and protein content, 891
Raphanus caudatus L., comp of, 817
Rapistrum rugosum (L.) All., comp of, 817
Rebaudia pinnata (Viv.) O. E. Schulz, comp of, 817
Red goosefoot, oil and protein content, 891
Ricotia sp., comp of, 817
Rivea corymbosa L., fatty acid comp of, 814
Rumex fennicus, oil and protein content, 891
Russian pigweed, oil and protein content, 891
safflower, glycerides of, 961
Sapium sebiferum, optically active glycerides in, 945
Saponaria vaccaria, oil and protein content, 891
Savignya parviflora (Del.) Webb, comp of, 817
Schimpera arabica Hochst. and Steud, comp of, 817
Sebastiana lingustrina, optically active glycerides in, 945
Senebiera coronopus (L.) Poir., comp of, 817
Sinapis alba L., comp of, 817
Sinapis arvensis L., comp of, 817
Sisymbrium alliaria Scop., comp of, 817
Sisymbrium altissimum L., comp of, 817
Sisymbrium columnae Hook., comp of, 817
Sisymbrium cantortum Cav., comp of, 817
Sisymbrium erysimoides Desf., comp of, 817
Sisymbrium gariepinum Burch., comp of, 817
Sisymbrium lagascae Amo., comp of, 817
Sterculia foetida, prep of methyl malvalate from, 885
stillingia, glycerides of, 957
sunflower, glycerides of, 961
Theobroma Cacao L., 2-oleopalmitostearin from, 945
Thlaspi alpestre L., comp of, 817
Thlaspi alvense L., comp of, 817
Thlaspi perfoliatum L., comp of, 817
Thysanocarpus radians Benth., comp of, 817
tobacco, glycerides of, 961
Turularia torulosa O. E. Schulz, comp of, 817
Vella annua L., comp of, 817
Vernonia anthelmintica, solvent extraction, 563
Vernonia anthelmintica (L.) Willd., storage and epoxy content, 147
wild cucumber, oil and protein content, 891
Zilla spinosa (Turra) Prantl, comp of, 817
Oil shipments, dtmn of weights, 155
Olefins, addition to fatty acids with peroxide catalyst, 233
prep of α-haloalkylpyridinium halides from, 924
Oleic acid, addition of dialkylphosphonates, 134
free radical additions, 457
freezing points in mixed fatty acids, 1056
isomerization by nitrous acid, 73
in lecithin acid interchanges, 465
nitrosyl chloride adduct, 713
oxidative analysis, 121
prep of pyridinium quaternaries from, 924
selectivity factor for oils containing, 965
solvent separation from linoleic acid, 346
TLC analysis, 381
Oleic acid methyl ester, ozonolysis, 236
Oleic glycerides, hydrolysis by specific lipase, 1029
1-Oleo-dipalmitin, IR spectra, 353
2-Oleo-dipalmitin, IR spectra, 353
2-Oleodistearin, of cocoa butter, dilatometry, 308
2-Oleopalmitostearin, of cocoa butter, dilatometry, 308
1-Oleo-3-stearin, x-ray diffraction data, 945
Oleyl alcohol, by catalytic hydrogenolysis, 646
Na-Oleyl sulfonate, detersive properties of, 873
Olive, nutrition study of oxidized, 770
Olive oil, carbonyls in oxidized, 839
detection of adulteration, 815
IR spectra of, 19
reacted with dichlorocarbene, 19
Optical activity, of estolides, 428
of hydroxy fatty acids, 569
Optically active triglycerides, synthesis and analysis of, 945
Orconectes rusticus (crayfish), fatty acids of, 633
Ovarian tissue lipids, fatty acid comp of, 540
Oxidation of oils, in deep frying, 878
Oxidative cleavage, of double bonds, 121
Oxidative stability, of soybean oil, effect of metals, 344
Oxidized fats, changes in, 782
dimer fatty acids in, 764
nutritional studies of, 770
reaction with protein, 779
Oxidized oils, flavor evaluation, 734
Oximes, dtmn of Keto acids, 126
Oxirane content, effect of *Vernonia* oil storage, 147
Oxirane oxygen, dtmn in seed oils, 208
Oxirane oxygen, dtmn, a review, 329
Oxo-process tridecyl alcohol, polyethylene glycol ethers, 65
Oxyethylation, of dihydroxystearic acid, 553
Ozonization, effects of solvents on, 894
of soybean esters, 824
of unsaturated fatty esters, 236
Ozonolysis, location of double bonds, a review, 326
prep of malonaldehyde acetals by, 14
Ozonolysis products, catalytic hydrogenation, 549

P

Packed columns, for miscella desolventizing, 1152
Palmitic acid, freezing points in mixed fatty acids, 1056
S-1-Palmito-disorbin, optical activity of, 945
Palmitoleic acid, isomers in rats, 511
Palm oil, fatty acid comp of, 757, 1029
glyceride comp of, 757
lipase hydrolysis, 1029
Sumatra, fatty acid comp, 9
Sumatra, glycerides of, 9
Palm kernel oil, fatty acid comp of, 757
glyceride comp of, 757
Palustric acid, GLC analysis, 255
Pancreatic hydrolysis, of fats, 751
Pancreatic lipase, in glyceride analysis, 965
glyceride hydrolysis, 1029
Paraffin sulfonates, analysis by P-GC, 1097
Parsley seed, petroselinic acid from, 922
R-1-Pavalyl-divalerin, optical activity of, 945
Peanut flour, for human foods, 658
Peanut germination, lipase activity, 617
Peanut oil, effect of feeding heated, 774
elaidinized, effect on rat triglycerides, 1035
fatty acid comp, 9, 1029
GLC analysis by AOCS subcommittee, 347
glyceride comp of, 757
glycerides of, 9, 961
lipase hydrolysis, 1029
selectivity of hydrogenation, 250
variations in comp of, 757
Peanuts, aflatoxin assay, 467
lipase activity effect of radiation, 617
research on aflatoxin in, 466A
Pelargonate esters, ammonolysis of, 824
Peltaria angustifolia DC. seed oil, comp of, 817
Pendulina lagascana Willk. seed oil, comp of, 817
Penstemon spectabilis seed oil, analysis of, 208
Pentacyanocobaltate, as hydrogenation catalyst, 432
5-Pentadecalaction, prep of, 927
p-Pentadecyl thiomyristate, viscosity, 25
Periodate-permanganate, cleavage of double bonds, 121
Periodate-permanganate oxide, location of double bonds, 326
Peripheral nerve, lipid class and fatty acid composition, 492
Perirenal lipids, beef, change in storage, 141
Permanganate-periodate, cleavage of double bonds, 121
Permanganate-periodate oxide, location of double bonds, 326
Peroxidation, of lipids, *in vivo*, 908
Peroxides, dtmn by Stamm method, 920
Petroselinic acid, selectivity factor for oils containing, 965
in rats, 511
prep of 2-hydroxytridecanenitrile from, 841
prep of 2-decyl-2-hydroxymethyl-1,3-propanedial from, 833
Ritter reaction and, 922
Phenolformaldehyde resins, film properties of, 23
2-Phenyl alkanes, detersive properties of, 998
5-Phenyldodecane, detersive properties of, 998
2-Phenyl-2-methylundecane, detersive properties of, 998
Pheophytin, in rapeseed oil, 781
Phosphatides, analysis, 298
chromatographic analysis, a review, 215
classification and structure, 215
from fractions by successive extraction of cottonseed, 173
of plants, review, 610
purification by dielectric distribution, 936
of rat liver, 511
Phosphatidic acid, in myelin turnover radiolabeling, 1013
of plants, 610
synthesis, 257
Phosphatidyl choline (PC), chicken muscle, 533
conversion to diglyceride acetates, 298
of milk, fatty acid comp, 1142
in mitochondria and microsomes, 588
in myelin turnover radiolabeling, 1013
in plants, 610
Phosphatidylethanolamine (PE), analysis in lipids, 215
in blood clotting, 500
chicken muscle, 533
conversion to diglyceride acetates, 298
of milk, fatty acid comp, 1142
in mitochondria and microsomes, 588
in myelin turnover radiolabeling, 1013
in nerve lipids, 492
in plants, 610
from pork muscle tissue, 45
in red blood cells, 137
Phosphatidyl glycerol, conversion to diglyceride acetates, 298
of plants, 610
synthesis, 257
Phosphatidyl hydroxypraline, synthesis, 257
Phosphatidyl inositol, analysis in lipids, 215
in blood clotting, 500
in cell components, 588
conversion to diglyceride acetates, 298
in myelin turnover radiolabeling, 1013
in nerve lipids, 492
of plants, 610
Phosphatidyl peptides, synethsis, 257
Phosphatidylserine (PS), analysis in lipids, 215
in blood clotting, 500
chicken muscle, 533
conversion to diglyceride acetates, 298
of milk, fatty acid comp, 1142
in mitochondria and microsomes, 588
in myelin turnover by radiolabeling, 1013
in nerve lipids, 492
of plants, 610
from pork muscle tissue, 45
in red blood cells, 137
L-α-Phosphatidyl serine, synthesis, 257
Phosphatidyl threonines, synthesis, 257
Phosphoglycerides, biological structure of myelin, 481
Phosphoinsitides, dtmn of, 1001
Phospholipase C, hydrolysis of plasmologens, 298
Phospholipases, in lecithin synthesis, 465
Phospholipids, analysis, 290
of blood cells, review, 665
in blood clotting, 500
of chicken muscle tissues, 533
of cow's milk, fatty acid comp, 1142
of crayfish, 633
egg, homogeneous lecithin from, 53
of erythrocytes, 615
IR spectra, 353
and lipid peroxidation, 908
in menhaden muscle, 887
metabolism, 580
in mitochondria and microsomes, 588
molecular species in, 298
of plants, a review, 610
from pork tissue, 45
of red blood cells, 137
relation to triglycerides in fungi, 1051
review, 257
of skin, 691
TLC analysis, handling precautions, 381
Phosphonates, addition to double bonds, 134
Phosphono lipids, a review, 257
Phosphorus, derivatives of fatty acids, 134
dtmn of in lipids, 1002
Phrenosine, Koenigs-Knorr reaction with acetobromogalactose, 267
Phycomyces blakesleeanus, lipids of, 1051
Phytoglycolipids, of plants, 610
Phytosphingosine, analysis, 294
Phytosterols, in tall oil, 193
γ-Picoline quaternaries, synthesis of, 924
Piezoelectric effects, optically active glycerides, 945
Pig liver fat, comp of, 862
Pigs, depot fat glycerides, 446
lipid metabolism, 435
Pimaric acid, GLC analysis, 255
Pistacia Lentiscus L. seed and seed oil, comp of, 1
Pistacia seed oil, refining loss, 149
Pistacia Terebinthus L. seed and seed oil, comp of, 1
Plant lipids, review, 610
Plants, effect of fats on sensitivity to cold, 1056
Plasma lipids, in animals, a review, 516
of human blood, 665
Plasmologens, chicken muscle, 533
of cow's milk, 1142
hydrolysis by phospholipase C, 298
IR spectra, 353
in nerve lipids, 492
structure, 267
Plasticizers, dialkylamides as, 941
tall oil acid-formaldehyde derivatives, 199
tall oil esters for vinyl resins, 196
Platelet lipids, effect on coagulation, 500
Platycodon grandiflora seed oil, characteristics and fatty acid comp, 891
Platycodon grandiflora seeds, oil and protein content, 891
Plymouth, Wis., activated sludge process at, 867
Polyenoic fatty acids, metabolism, 580

Polyethylene glycol esters, synthesis of, 65
Polyethylene glycol monotridecyl ethers, purification of, 65
Polymethylene chains, in fatty acids, length by IR, 437
Polymorphism, of cocoa butter, 308
——of propyleneglycol monoesters, 529
Polymorphism of fatty chains, effect on IR spectra, 353
Polyoxyethylene-polyexypropylene surfactants, micelle formation, 1088
Polyunsaturated acids, autoxidation, 717
——biosynthesis, 504
——effect on rat lipids, 1137
——metabolism and biosynthesis, 639
——metabolism and biosynthesis, 580
——in rat diets, metabolism, 1137
——in rats, 511
——separation by preparative GLC, 673
——synthesis with tritium or C_{14} labeling, 583
C_{20}- and C_{22}-Polyunsaturated acids, biosynthesis, 580
Polyunsaturated oils, molecular distillation and bleaching, 561
Polyvinyl chloride, plasticizers for, 941
Pork, gossypol content, 145
Pork fat, glyceride structure, 1121
Pork muscle, phospholipids in, 45
Pork testes and ovaries, lipids, 540
5 α-Pregnane, standard in GLC steroid analysis, 283
Pregnan hormones, analysis, 283
Preparative GLC, fraction collector, 159
——review, 673
Pressure leaf filters, recent developments and improvements, 44A
Prins reaction, unsaturated fatty acids and formaldehyde, 199
Progesterone, analysis, 283
9-*p*-Propexymethyl-9-octadecene, identification of, 899
Propionamidostearic acid, prep of, 922
1-Propoxy-2-decanone, identification of, 899
Propyleneglycol monoesters, prep, 529
Propyl gallate (PG), analysis in foods, 228
***p*-Propyl thioacetate**, viscosity, 25
Prostaglandins, effect on lipid metabolism, 608
——a review, 608
Protein, reaction with oxidized fats, 779
Protein malnutrition, use of peanut-soyflour mixtures, 658
Proteolipids, of plants, 610
Proton magnetic resonance (PMR), analysis of fatty acids, 208
Pseudomonas fragi lipase, for glyceride structure study, 1038
Psychosine, synthesis, 267
Pyridinium quaternaries, synthesis of, 924
Pyrolysis-gas chromatography, see Chromatography, pyrolysis-gas

Q

Quantitative Methodology in Lipid Research, Symposium, Part I. Beginning on page 257
——Part II, beginning on page 353
——Part III, beginning on page 481
——Part IV, beginning on page 569
——Part V, beginning on page 665
bis-Quaternaries, evaluation as fabric softener, 1084
Quaternary ammonium compounds, urea adducts, 337
Quaternary ammonium fabric softeners, evaluation, 1084

R

Rabbits, depot fat glycerides, 446
——feeding of degossypolized cottonseed meal, 656
Radioactive acetate, incorporation in brain cholesterol, 1003
Radioactive cholesterol, synthesis, 903
Radioactive glucose, incorporation in brain cholesterol, 1003
Radiocarbon, incorporation in brain cholesterol, 1003
Radiocarbon (C^{14}), labeled fatty acids, 583
Radiochlorine tracer studies, in lipid metabolism, 435
Rancidity, flavor evaluation, 734
Raney nickel, catalytic conversion of rininoleates to 12 ketostearates, 340
Rapeseed oil, chlorophyll and carotene content, 781
——evaluation as edible oil, 78
——fatty acid comp, 78
——flavor and oxidative stability of, 811
Raphanus caudatus L. seed oil, comp of, 817
Rapistrum rugosum (L.) All. seed oil, comp of, 817
Rat adipose tissue, comp of, 849
Rat lipids, comp of, 770
Rat liver fats, comp of, 862
Rat liver lipids, effect of methyl parathion on, 864
Rat liver triglycerides, structure by TLC, 87
Rats, effect of diet on fatty acids, 511
——effect of diet fats on lipids, 1124, 1130
Rat triglycerides, effect of elaidic acid in diet, 1035
Reboudia pinnata (Viv.) O.E. Schulz seed oil, comp of, 817
Recording refractometer, monitoring CCD with, 72
Red blood cells, lipids, 615
——phospholipids, 137
Red goosefoot seeds, oil and protein content, 891
Reduction, unsaturated acids to unsaturated alcohols, 646
Refinery Safe Operations Committee, duties, 162A
Refining, Pistacia seed oil, 149
Refractive index, relation to iodine value of oils, 208
Refractometer, recording, monitoring CCD with, 72
Resins, from hydroxyphenylstearic acid, 23
——tall oil acids, 96
Rewettability, of fabrics treated with softeners, 1084
Ribosomes, lipids, 588
Rice bran, oil extraction, 151
Ricinoleic acid, alkaline cleavage of, 882
——analysis of, 418
——configuration, 569
——conversion to 12-letostearic acid, 340
——formation of estolides, 428
——GLC analysis as trimethylsilyl ether, 81
Ricotia sp. seed oil, comp of, 817
Ritter reaction, with petroselinic acid, 922
Rivea corymbosa L. seed oil, fatty acid comp of, 814
River die-away method, for measuring biodegradation, 1081
Rosin, dimer acid content, 111
Rosin acids, chromatography, 255
——in tall oil, 193
Rosin esters, by pyrolysis of tetramethylammonium salts, 255
Rumex fennicus seed, oil and protein content, 891
Russian pigweed seeds, oil and protein content, 891

S

Sable fish oil, fatty acid comp, 624, 1046
——triglyceride structure, 1046
Safety, basic equipment inspection, 162A
——unit safety inspection guide, 162A
Safflower oil, carbonyls in oxidized, 839
——effects of ingestion of on liver and serum lipids, 843
——fatty acid comp, 1029
——flavor evaluation, 734
——glycerides of, 961
——hydrogenation selectivity, 1150
——lipase hydrolysis, 1029
——ozonolysis of methyl esters, 14
——reacted with dichlorocarbene, 19
——stability test, 30
Sapium sebiferum seed oil, optically active glycerides in 945
Saponaria vaccaria seeds, oil and protein content, 891
Saponification, of fatty acids, continuous and automatic, 228A
Saturated acids, chain length by IR, 437
Saturated fatty acids, solidification mixed with unsaturated acids, 1056
Savignya parviflora (Del.) Webb seed oil, comp of, 817
SC and SCC processes, continuous fatty acid saponification, 228A
Sciatic nerve lipids, normal and degenerating, 492
Scouring agents, evaluation, 116
Schimpera arabica Hochst. and Steud seed oil, comp of, 817
Seal oil, fatty acid comp, 516
Sebaceous glands, of skin, lipids, 685, 691, 702, 708
Sebacic acid, prep of, 882
Sebastiana lingustrina seed oil, optically active glycerides in, 945
Sebum (skin lipids), review, 685, 691
Seed oils, See oils
Selectivity, of hydrogenation, 250
Selectivity factors, in glyceride oils, 965
Selectivity of hydrogenation, effect of solvents, 1150
Selenium, effect of on fat metabolism, 908
Senebiera coronopus (L.) Poir. seed oil, comp of, 817
Senile cerebral cortical atrophy, effect on brain lipids, 404, 411
Serum lipids, TLC analysis, 1154
Sesame oil, effect of feeding heated, 774
Sewage treatment, by activated sludge process, 867
Sex attractants, review, 681
Shipment of oil, dtmn of weights, 155
Ships, dtmn of bulk oil in tanks, 155
Shortening, carbonyls formed in during heating, 776
——fatty acid comp, 776
——solids by NMR and dilatometry, 1075
——worksoftening of, 27
Silkworm moth, sex attractants, 681
Silent electric discharge, modification of fats, 1070
Silver nitrate TLC, dtmn of glyceride structure, 87
Sinapis alba L. seed oil, comp of, 817
Sinapis arvensis L. seed oil, comp of, 817
Sisymbrium alliaria Scop. seed oil, comp of, 817
Sisymbrium altissimum L. seed oil, comp of, 817
Sisymbrium columnae Hook. seed oil, comp of, 817
Sisymbrium contortum Cav. seed oil, comp of, 817
Sisymbrium erysimoides Desf. seed oil, comp of, 817
Sisymbrium gariepinum Burch. seed oil, comp of, 817
Sisymbrium lagascae Amo. seed oil, comp of, 817
Skin lipids, review, 685, 691, 702, 708
Sludge, activated, degradation of LAS, 627
Snake venom phospholipase, in lecithin synthesis, 465
Soaps, analysis by P-GC, 1097
——IR spectra, 353
Soaps and fatty acid salts, chain length by IR, 437
Soapstock acidulation, continuous process, 172A, 661
——continuous processing, 566
Sodium dodecylbenzene sulfonate (DBS), detergency, 449
Sodium dodecyl sulfate, surface activity, 114
Sodium octadecyl sulfate, surface activity, 114
Sodium p-(Thia-n-dodecyl)-benzene sulfonates, synthesis and properties, 1095
Sodium tetrapropylenebenzene sulfonates, detersive properties of, 998
Soil, for detergency tests, 449
Soil redeposition, vs deposition tests, 993
Solid fat index (SFI), for shortenings and fats, 1075
Solidification, of mixed fatty acids, 1056
Solids in fats, by NMR and dilatometry, 1075
Solvent crystallization, analysis of beef tallow, 141
Solvent evaporation, by centrifugal evaporator, 462
Solvent extraction, comp of successive cottonseed oil fractions, 173
——of ironweed seed, 563
Solvents, effect of selectivity of oil hydrogenation, 1150
Solvent stripping, effect of packed column, 1152
Solvent winterization, of soybean oil, 738
Solvent, safety in handling, 162A
Sorbic acid, hydrogenation, 432
S-1-Sorbino-dipalmitin, optical activity of, 945
Sow milk fat, triglyceride structure by lipase hydrolysis, 1040
Soybean esters, hydrogenation cobalt carbonyl catalyst, 130
——ozonization of, 824
Soybean flakes, dtmn of residual hexane in, 62
Soybean flour, for human foods, 658
Soybean miscella, separation of, 936
Soybean oil, analysis of, 305
——aldehyde oils from, 835
——cyclic alcohols from, 876
——desolventizing in packed columns, 1152
——detection of in olive oil, 815
——dielectric distribution separation by, 931
——fatty acid comp, 9
——fatty acids in commercially hydrogenated, 727
——flavor when autoxidized, 1148
——flavor components after hydrogenation, 246
——flavor evaluation, 734, 736
——flavor and oxidative stability of, 811
——flavor stability, effect of trace elements, 344
——glycerides of, 9, 957
——H W, stability of, 30
——hydrogenated, fatty acid isomers, 727
——identification of oxidation flavor, 1148
——prep of amines from, 824
——selectivity of hydrogenation, 250
——solvent winterization of hydrogenated oil, 738
——stability test, 30
——trace elements, 344
——volatile by-products in hydrogenation of autoxidized oil, 85
Soybean phosphatides, purification of, 936
Soybeans, dtmn of residual hexane in extracted, 62
Soybean soapstock, continuous acidulation, 661
Squalene, of human skin, 691
Sphingolipids, analysis, 299
——biological structure of myelin, 481
——chromatographic analysis, a review, 215
——of plants, 610
——synthesis, 267
Sphingomyelin, analysis, 290
——analysis for fatty acid position, 298
——analysis in lipids, 215
——of blood cells, review, 665
——chicken muscle, 533
——fatty comp normal and diseased brain, 411
——IR spectra, 353
——long chain bases, 294
——of milk, fatty acid comp, 1142
——in myelin turnover by radiolabeling, 1013
——in nerve lipids, 492
——from pork muscle tissue, 45
——in red blood cells, 137
——synthesis and structure, 267
Sphingosine, analysis, 294
——elimination in brain lipid fatty acid analysis, 290
——synthesis, 267
C_{18}-Sphingosine, identification in lipid analysis, 294

C$_{20}$-Sphingosine, analysis, 294
Spleen lipids, analysis, 290
"SR 151" emulsion, for intravenous feeding, particle size, 312
Stamm method, for dtmn of peroxides, 920
Staphylococcus aureus lipase, for glyceride structure study, 1038
Stearic acid, in lecithin acid interchanges, 465
1-Stearo-dipalmitin, x-ray diffraction data, 945
1-Stearo-3-palmitin, x-ray diffraction data, 945
Stearyl-dimethyl-benzyl-ammonium chloride, urea adduct, 337
Sterculene, reaction with Ag NO$_3$, 899
Sterculia foetida oil, analysis of, 208
—— analysis for cyclopropenoic acids, 637
—— methyl esters, 899
—— prep of methyl malvalate from, 885
Sterculic acid, analysis, 332
—— analysis for cyclopropenoid acids, 637
—— GLC analysis, 208
—— selectivity factor for oils containing, 965
Sterculic acid derivatives, methyl esters, 899
Stereochemical analysis, of glycerides, 945
Steric analysis, of triglycerides, 945
Steroid hormones, chromatography, a review, 283
Steroids, IR spectra, 353
—— separation by preparative GLC, 673
Sterol esters, in animals, 516
Sterol and sterol esters, of human skin, 691
Sterols, biosynthesis, 1018
—— brain in normal and pathological conditions, 400
Stillingia seed oil, glycerides of, 957
Strawflower oil, (Helichrysum bracteatum), separation of fatty acids, 165
Subcellular particles, lipids of, a review, 588
Subcutaneous lipids, beef, change in storage, 141
Sucrose esters, as detergents, 800
Sulfatides, analysis in lipids, 215
—— in myelin, 1013
—— in nerve lipids, 492
Sulfides, identification in lipids, 475
α-Sulfo acids, from branched chain fatty acids, 233
—— salts, of alkyl esters, 1078
Sulfoalkyl sulfates, prep and properties, 114
2-Sulfoethyl α-sulfopalmitate, disodium salt, 114
α-Sulfo fatty acids, as detergents, 805
—— toxicology of, 805
2-Sulfoethyl α-sulfostearate, disodium salt, 114
2-Sulfohexadecanol, sulfation, 114
2-Sulfohexadecyl sulfate, disodium salt, 114
Sulfolipids, in nerve tissue, 492
—— of plants, 610
Sulfonation, of α-olefins, 873
Sulfones, in LAS surfactants, 1091
2-Sulfooctadecanol, sulfation, 114
2-Sulfooctadec^{-1} sulfate, disodium salt, 114
α-Sulfopalmitic acid, intermediate for sulfoalkyl sulfates, 114
—— salts of alkyl esters, 1078
α-Sulfostearates, biodegradation, 189
α-Sulfostearic acid, intermediate for sulfoalkyl sulfates, 114
—— salts of alkyl esters, 1078
Sulfur, in lipids, identification, 475
Sulfur amino acids, *in vivo* antioxidant, 908
Sulfur compounds, in lipids, identification, 475
Sunflower seed oil, glycerides of, 961
Surface activity, alkoxy and thioalkyl sulfates, 720
—— α-sulfo branched chain acids, 233
—— α-sulfo fatty acid derivatives, 114
Surface tensions, effect on detergency, 546
Surfactant analysis, cloud points of ethoxylated nonionics, 1054
Surfactants, alkyl benzene sulfonates with sulfide links in alkyl chain, 1095
—— analysis of, 544
—— analysis for neutral oil components, 1091
—— analysis by pyrolysis GLC, 1097
—— dtmn of biodegradability of, 983
—— evaluation of detergency, 546
—— evaluation of micelle formation, 1088
—— mechanism of detergency, 629
—— performance of sulfo acid derivatives, 1078
—— practical evaluation, 177
—— soil removal, 449
Surveying, oil in ships, 155
Swine, lipid metabolism, 435
Symphytum officinale seed oil, analysis of, 208

T

Tallate driers, 109
Tall oil, acids in coatings, 96
—— alkyds, urethanes, epoxy esters, 96
—— analysis of crude, 193
—— effect of wood age on yield, 202
—— formaldehyde derivatives as plasticizers, 199
—— processing, 193
—— processing by thin film stills, 96
Tall Oil, Symposium, Part I. Beginning on page 96
—— Part II. Beginning on page 193
Tall oil acids, esters as vinyl plasticizers, 196
—— 2-ethylhexyl ester, 196
—— isooctyl ester, 196
—— tetrahydrofurfuryl ester, 196
Tall oil black liquor, continuous acidulation, 193
Tall oil driers, review, 109
Tall oil fatty acids, condensates with formaldehyde, 199
—— GLC analysis by AOCS subbcommittee, 347
—— solvent separation of unsaturates, 346
Tall oil rosin, analysis, 255
Tall oil soaps, splitting, 193
Tallow, analysis, 305
—— α-sulfo esters, 805
Tallow, bayberry, GLC analysis of Fa as monoglycerides, 161
glyceride comp of, 747
variations in comp of, 757
—— beef, biosynthesis of cholesterol, 903
changes during storage, 141
fatty acid comp of, 141, 1121
glyceride comp of, 141, 754
glyceride structure, 1121
—— Chinese, optically active glycerides in, 945
—— lamb, fatty acid comp, 1121
glyceride structure, 1121
—— malabar, fatty acid and glyceride comp of, 751
Tallow alcohol sulfate, biodegradation, 189
Tallow-based detergents, biodegradability, 189
Tay-Sachs disease, effect on brain lipids, 404, 411
Testes, myo-insitol in, 1001
Testicular tissue, lipids, 540
Testosterone, analysis, 283
N,N,N',N'-Tetrabutylamide of dimer acid, properties, 941
***p*-Tetradecyl thiolaurate**, viscosity, 25
***p*-Tetradecyl thiomyristate**, viscosity, 25
***p*-Tetradecyl thiopalmitate**, viscosity, 25
***p*-Tetradecyl thiostearate**, viscosity, 25
Tetraenoic acids, in plants, 504
Tetrahydrofurfuryl tallate, as plasticizer, 196
9,10,12,13-Tetrahydroxystearic acid, GLC analysis, 81
δ-Tetralecalactone, prep of, 927
Thalictrum polycarpum seed oil, analysis of, 208
Theobroma Cacao L. seeds, 2-oleopalmitostearin from, 945
Thermal Oxidation and Polymerization in Fats, Symposium, beginning on page 763
Thermodynamics, of miscellar solubilization of dyes, 185
Thin-film evaporation, tall oil products, 96
Thioglucosides, dtmn of in Crambe seed, 889
Thiolaureates, viscosity of, 25
Thiol esters, short-chain, physical properties of, 25
—— viscosity of, 25
Thiols, identification in lipids, 475
Thiomyristates, viscosity of, 25
Thiopalmitates, viscosity of, 25
Thiostearates, viscosity of, 25
Thiourea, inclusion compounds with surfactants, 337
Thin-layer chromatography, see Chromatography, thin-layer
Thlaspi alpestre L. seed oil, comp of, 817
Thlaspi arvense L. seed oil, comp of, 817
Thalspi perfoliatum L. seed oil, comp of, 817
Threo-9, 10-dihydroxystearic acid, GLC analysis, 81
Threo,9,10-12-trihydroxystearic acid, GLC analysis, 81
Thysanocarpus radians Benth. seed oil, comp of, 817
Tobacco seed oil, glycerides of, 961
Tocopherol, deficiency symptoms, 908
Toluene sulfonates, measurement of biodegradation, 1081
Torularia torulosa O.E. Schulz seed oil, comp of, 817
Tracer studies, in lipid metabolism, 639
Tribehenin, IR spectra, 353
δ-Tridecalactone, prep of, 927
Tridecanoin, GLC analysis, 269
***p*-Tridecanol**, polyethylene glycol ethers, 65
7-Tridecanol, polyethylene glycol ethers, 65
7-Tridecyloxyethanol, prep of, 65
***p*-Tridecyl thiomyristate**, viscosity, 25
***p*-Tridecyl thiopalmitate**, viscosity, 25
Trienoic acid, from *calea urticaefolia*, 50
—— in plants, 504
Triglycerides, analysis by GLC, 269
—— of blood, review, 665
—— dtmn of, by TLC and GLC, 9
—— of human skin, 691
—— IR spectra, 353
—— optically active, 945
—— of rat, effect of elaidic acid diet, 1035
—— relation to phospholipids in fungi, 1051
—— relation of refractive index and IV, 208
—— selective hydrogenation, 250
—— separation by TLC and GLC, 978
—— structure, application of computer methods, 1032
microbial lipases for study, 1038
quantitative TLC, 87
reviews, 1029, 1032, 1040
—— TLC analysis, 381
2,4,5-Trihydroxybutyrophenone (THBP), analysis in foods, 228
Trihydroxycholanic acid, GLC analysis, 276
Trihydroxystearic acid, GLC analysis, 81
Trilaurin, GLC analysis, 269
Trimethylsilyl ethers (TMS), analysis of monoglycerides, 161
—— GLC analysis of hydroxy acids, 81
Trimyristin, GLC analysis, 269
—— IR spectra, 353
Triolein, effect on red blood cell lipids, 615
—— TLC analysis, 381
Tripalmitin, GLC analysis, 269
—— IR spectra, 353
Triparanol, effect on cholesterol formation in rats, 1018, 1024
Tristearin, GLC analysis, 269
—— IR spectra, 353
Tritium, labeled fatty acids, 583
Trivernolin, in *Euphorbiaceae lagascae*, 169
—— oxirane change on storage, 147
Tung oil, effects of ingestion of on liver and serum lipids, 843
—— glycerides of, 965
—— reacted with dichlorocarbene, 19
Turtle oil, analysis of, 38

U

Ucuhuba kernel fat, glyceride comp of, 974
Ultraviolet spectroscopic analysis, for aryl sulfonates (hydrotropes), 1081
Ultraviolet spectrophotometry, effect of enyne group, 208
—— isomerization of enyne, 243
Undecanoic acid, addition of dialkylphosphonates, 134
Undecylenic acid, free radical additions, 457
***p*-Undecyl thiostearate**, viscosity, 25
***p*-Undecyl thiopalmitate**, viscosity, 25
***p*-Undecyl thiomyristate**, viscosity, 25
Unit safety inspection, guide for, 162A
Unsaponifiables, in tall oil, 193
Unsaturated acids, analysis by GLC, 537
—— chain length by IR, 437
—— free radical addition reactions, 457
—— of hydrogenated soybean oil, 727
—— nitrosyl chloride adduct, 713
—— of rats, effect of diet, 511
—— segregation using heptones-dimethylsulfoxide, 346
trans-Unsaturated acids, metabolism, 516
Unsaturated fatty acids, solidification mixed with saturated acids, 1056
Unsaturated fatty alcohols, by hydrogenolysis of oleic acid, 646
Unsaturation, addition of dialkylphosphonates, 134
—— dtmn by hydrogenation, 208
—— effect on IR spectra, 353
Urea, inclusion compounds with surfactants, 337
Urea fractionation, in detection of trace fatty acids, 1063
Urethane foams, based on animal fats, 553
Urethane resins, tall oil, 96
Ursodeoxycholic acid, GLC analysis, 276

V

cis-Vaccenic acid, in rats, 511
Vegetable oils, flavor evaluation, 734
Vegetable protein, for human feeding, 658
Vella annua L. seed oil, comp of, 817
Vernix causeosa, lipids of, 691, 702
Vernolic acid, in *Euphorbiaceae lagascae*, 169
—— oxirane change on storage, 147
Vernonia anthelmintica seed, solvent extraction, 563
Vernonia anthelmintica (L.), Willd. seed oil, analysis of, 208
—— storage and epoxy content, 147
Vernonia oil, by solvent extraction, 563
Vernonia seed, effect of storage on oil yield and analysis, 147
Vinyl esters, of some aldehydic acid acetals, 16
Vinyl 8-(1,3-dioxolan-2-yl) octanoate, prep, 16
Vinyl 9, 9-dimethoxynonanoate, 16
Virola surinamensis fat, glyceride comp of, 974
Von Rudloff oxidation, of fats, 754
Volatile components, characterization from hydrogenated oxidized soybean oil, 85
Votator process, control of, 27

W

Wallerian degeneration, effect on brain lipids, 492
Walnut oil, fatty acid comp, 1063
Waste water analysis, continuous soapstock acidulation, 172A
Wax esters, of human skin, 691
Wesson refining, of Pistacia oil, 149
Wheat doughs, lipids from, 652
Wheat lipids, effect of chemical bleaches and aging dough, 652
Whiteness retention, effect of detergent comp on, 993
Wild cucumber seeds, oil and protein content, 891
Wild rose oil, glycerides of, 957
Winterization, of soybean oil using solvent, 738
Worksoftening, of margarine and shortening, 27

X

Xylene sulfonates, measurement of biodegradation, 1081

Z

Zilla spinosa (Turra) Prantl seed oil, comp of, 817
Zymosterol, in developing rat brains, 1024

COMMITTEES

E

Education, report of Oct. 12 meeting in Chicago, 65A

G

Governing Board, report, April 25, 1965, 334A

I

Industrial Oils and Derivatives, 1965 report, 716A
Instrumental Techniques, report, 1963–64, 347

L

Literature Review, Part I, 364A
—— Part II, 432A
—— Part III, 508A
—— Part IV, 582A
—— Part V, 638A
—— 1965, Part VI, 700A

S

Smalley, 1965–66 program features new gas chromatography series, 337A

U

Uniform Methods, 1965 report, 525A

NEWS

A

Albright, Lyle F. Book review—Alkylation with Olefins, by Topchiev et al., 558A
American Chemical Society, presents local section award to J. J. Hazdra, 288A
American Society for Testing and Materials, calls for detergent papers for Dec. 6 meeting, 292A
—— highlights of Sept. 21st annual meeting, 593A
—— to publish new journal, 709A
American Soybean Association, 45th annual convention to be held in Memphis on Aug. 16, 288A
—— held meeting in Aug. in Memphis, 559A
Analabs, Inc., lipids symposium to expose new frontiers, 339A
—— to sponsor symposium on metabolic roles of lipids, 232A
AOCS Commentary. A Tribute to Cooperative Growth and New Stature, Report of the President, 1964–65, by R. C. Stillman, 284A
Applied Science Labs, to open west coast office, 528A
ASCET, schedules annual meeting in June, 269A
Axelrod, B. Book review—Advances in Enzymology and Related Subjects of Biochemistry, Vol. 26, edited by Nord, 62A

B

Babayan, V. K. Shares 1965 Glycerine Association Award, 526A
Bailey Award, T. P. Hilditch chosen as recipient, 56A
Baldwin, A. R. Receives French Chevreul Medal, 535A
Barrow-Agee Award, 1965 cup given to E. R. Hahn, 298A
Bennett, O. L. Agricultural Research Service, Meat Inspection Division, Chemical requirements as they apply to the fat and oil industry, 4A
Bloch, Herman S. Book review—Advances in Petroleum Chemistry and Refining, Vol. IX, edited by McKetta, Jr., 96A
Book Reviews—*Advances in Analytical Chemistry and Instrumentation, Vol. 3,* edited by Reilley, 98A
—— *Advances in Enzymology and Related Subjects of Biochemistry, Vol 26,* edited by Nord, 62A
—— *Advances in Petroleum Chemistry and Refining, Vol. VIII,* edited by McKetta, Jr., 180A
—— *Advances in Petroleum Chemistry and Refining, Vol. IX,* edited by McKetta, Jr., 96A
—— *Alkylation with Olefins,* by Topchiev et al., 558A
—— *Alternating Current Polarography and Tensammetry,* by Breyer and Bauer, 558A
—— *Aluminum, Its Applications in the Chemical and Food Industries,* by Juniere and Sigwalt, 180A
—— *Analysis and Characterization of Oils, Fats and Fat Products, Vol. I,* edited by Boekenoogen, 94A
—— *An Introduction to Polymer Chemistry,* by Moore, 204A
—— *The Chemistry of Natural Products,* 538A
—— *Concise Dictionary of Atomics,* edited by del Vecchio, 236A
—— *Conformational Analysis,* by Eliel *et al.,* 714A
—— *Emulsions and Water Soluble Paints and Coatings,* by Martens, 10A
—— *Emulsions: Theory and Practice, 2nd Ed.,* by Becher, 714A
—— *Fatty Acid Metabolism in Microorganisms,* by Hofmann, 10A
—— *Fatty Acids: Their Chemistry, Properties, Production, and Uses, Ed 2, Part III,* edited by Markley, 292A
—— *Formula Index to NMR Literature Data, Vol. I,* edited by Howell, Kende, and Webb, 558A
—— *Gas Chromatography, 1962,* edited by Van Swaay, 10A
—— *Handbook of Industrial Infrared Analysis,* by White, 240A
—— *Identification and Analysis of Surface Active Agents by Infrared and Chemical Methods,* by Hummel, 182A
—— *Instrumentation in the Chemical and Petroleum Industries—1964,* edited by Robinson, 558A
—— *Lipid Transport,* by Meng, 205A
—— *Methods in Microanalysis, Vol. I. Simultaneous Rapid Combustion,* edited by Kuck, 236A
—— *New Biochemical Separations,* edited by James and Morris, 290A
—— *New Methods of Analytical Chemistry,* by Belcher and Wilson, 98A
—— *Open Tubular Columns in Gas Chromatography,* by Ettre, 714A
—— *Organic Semiconductors,* by Okamoto and Brenner, 663A
—— *Polyethers: Part I. Polyalkylene Oxides and Other Polyethers,* edited by Gaylord, 62A
—— *Progress in the Chemistry of Fats and Other Lipids, Vol. VII, Part 2,* edited by Holman, 236A
—— *Proteins: Their Chemistry and Politics,* by Altschul, 663A
—— *Reagents and Reactions for Qualitative Inorganic Analysis: Fifth Report,* by West et al., 62A
—— *Surfactants—Textile Auxiliaries—Detergent Raw Materials,* by Lindner, 290A
—— *Technologia Chimica Industriale Degli Oli, Grassi e Derivati,* by Martinenghi, 184A
—— *Underground Processing of Fuels,* 10A
Bottino, Nestor R. Book review—Progress in the Chemistry of Fats and Other Lipids, Vol. VII, Part 2, edited by Holman, 236A
Brewster, J. H. Book review—The Chemistry of Natural Products, 538A
Brussels Congress, studies world-wide problems of detergents, 17A

C

Carola, Cesare. Book review—Technologia Chimica Industriale Degli Oli, Grassi e Derivati, by Martinenghi, 184A
Carroll, K. K. Book review—New Biochemical Separations, edited by James and Morris, 290A
Castor Oil Association, 1965 Officers and Directors announced, 115A
Charges, page, authors asked to assume portions of publishing costs, 611A
Chemurgic Council, highlights of 29th annual meeting, 593A
Chicago Drug and Chemical Association, elects 1965 officers, 154A
Chromatography meeting, to be held in Athens on Sept. 19, 56A
Clifford, A. F. Book review—Reagents and Reactions for Qualitative Inorganic Analysis: Fifth Report, by West et al., 62A
Consulting chemists, Toronto groups merge to form new S. E. Young Research Labs, 559A
Corresponding Secretary Reports, Canada, 710A
—— Great Britain, 710A
—— Philippines, 710A
—— Sweden, 250A, 599A
Cosmetic Chemists Society, holds annual meeting on Dec. 2, 1964, 121A
Cottonseed Processing Clinic, reflects changing needs, 218A

D

Day, E. A., accepts new post, 719A
De Vries, Thomas. Book review—New Methods of Analytical Chemistry, by Belcher and Wilson, 98A

E

Eddy, C. Roland. Book review—Concise Dictionary of Atomics, edited by del Vecchio, 236A
Eldorado, S. A., opens new large-scale process plant in San Salvador, 528A
Embree, Norris, appointed to National Research Council, 609A
Engel, Eric. Book review—Aluminum, Its Applications in the Chemical Food Industries, by Juniere and Sigwalt, 180A

F

Fatty Acid Report, October 1964, 32A
Firestone, David. Book review—Analysis and Characterization of Oils, Fats and Fat Products, Vol. 1, edited by Boekenoogen, 94A
Flynn Memorial Scholarship Fund, contributions being accepted, 392A
Food and Drug Administration, meets with Food Law Institute, 718A
Food Law Institute, meets with FDA, 718A
French Chevreul Award, given to A. R. Baldwin, 535A

G

Gas Chromatography, 4th Chicago Course, 709A
Ginn, M. E. Book review—Surfactants—Textile Auxiliaries—Detergent Raw Materials, by Lindner, 290A
Glycerine Association Award, given to V. K. Babayan, Hans Kaunitz, and Henry Lehman, 1965, 526A
Glycerine report, production up for October 1964, 38A
—— December 1964, 84A
—— Jan. to Dec. 1964, 123A
Goering, H. L. Book review—Organic Semiconductors, by Okamoto and Brenner, 663A
Golf Trophies, winners announced, 391A
Gordon Research Conference, 1965 program set, 218A
Gortner, W. A. Book review—Proteins: Their Chemistry and Politics, by Altschul, 663A
Great Lakes Regional, to hold meeting in June, 613A
Greene, Barbara, wins graduate fellowship, 612A
Grover, R. B. Book review—Emulsions and Water Soluble Paints and Coatings, by Martens, 10A
Guide to Authors, general publication policies, 394A-3
Gunstone, F. D. Tribute to T. P. Hilditch, 474A

H

Haberstroh, H. N. Recent developments and improvements in pressure leaf filters, 42A
Hahn, E. R. Awarded Smalley Cup and Barrow-Agee Award, 298A
Hazdra, J. J. receives local section award from American Chemistry Society, 288A
Hilditch, T. P. Tribute to, given by F. D. Gunstone at Houston meeting, 474A
Holley, K. T. retires, 719A
Holt, K. E. Report of the Industrial Oils and Derivatives Committee, 1965, 716A

Hopkins, C. Y. Book review—Formula Index to NMR Literature Data, Vol. I, edited by Howell, Kende, and Webb, 558A

I

Institute of Food Technologists, to hold annual meeting in May, 32A
——highlights of May 16 annual meeting, 329A
Instrument Society of America, announces content for 2nd annual gas chromatography course Aug. 23, 288A
——calls for papers for Oct. 4 annual conference, 56A
International Association of Seed Crushers, fats and oils review given at 43rd Congress, 522A
International Chemical Exhibition, to be held in Paris in spring 1965, 174A
International Conference of Chemical Arts, to be held in Paris in spring 1965, 174A
International Relations, Canada, 710A
——Great Britain, 710A
——Philippines, 710A
——Sweden, 250A, 599A
International Society for Fat Research, VIIIth Congress will be held Oct. 9, 1966 in Budapest, 376A
International Union of Pure and Applied Chemistry, 20th Congress will feature American scientists, 453A
Irving, George W., Jr. USDA research program on mycotoxins, 466A

J

Jackson, F. L. Book review—Methods in Microanalysis, Vol. I. Simultaneous Rapid Combustion, edited by Kuck, 236A
Jungermann, Eric. Named new technical director for Armour Grocery Products Company, 526A

K

Kaunitz, Hans. Shares 1965 Glycerine Association Award, 526A
Klenk, Ernst. Named for second AOCS Award in Lipid Chemistry, 239A
Klenk, Margarete. Gives résumé of husband's career, 239A
Klingerman, R. H., and West, R. W. A simple and efficient method for the recovery of deodorizor distillates, 176A
Kopas, G. See Mustakas, G. C.
Koppel, L. B. Book review-Instrumentation in the Chemical and Petroleum Industries—1964, edited by Robinson, 558A
Kuhrt, Noel. Education Committee report, 65A

L

Lanteri, A. Continuous and automatic saponification of fatty acids, 228A
Lehigh University, team studies fat-based detergents, 174A
Lehman, Henry. Shares 1965 Glycerine Association Award, 526A
Lipid Chemistry Award, given to Ernst Klenk, 239A
——call for nominations for 3rd AOCS award, 610A
Literature Review, 1965, Part I, 364A
——Part II, 432A
——Part III, 508A
——Part IV, 582A
——Part V, 638A
——1965, Part VI, 700A
Long, R. B. Book review—Advances in Petroleum Chemistry and Refining, Vol. VIII, edited by McKetta, 180A

M

Magidman, Paul. Book review—Open Tubular Columns in Gas Chromatography, by Ettre, 714A
Mahadevan, V. Annual Review of Literature, 1965, Part I, 364A
——Part II, 432A
——Part III, 508A
——Part IV, 582A
——Part V, 638A
——Part VI, 700A
Markley, Klare S. Part III of book on fatty acids released, 522A
MacGee, A. E. Book review—Underground Processing of Fuels, 10A
MacGee Honor Student Program, nominations being accepted, 12A
Maerker, G. Book review—Polyethers: Part I. Polyalkylene Oxides and Other Polyethers, edited by Gaylord, 62A
Manring, R. Statistics for better spec's, 668A
Meetings of AOCS—1965, spring, Houston, abstracts of papers, 112A
——complete technical program, 90A
——Houston does it again!, 280A
——golfing members anticipate annual tournament, 111A
——partial program, 8A
——pictures, 280A
——record attendance expected, 52A
——1965, fall, Cincinnati, abstracts of papers, 410A
——chairmen report, 338A
——diversified program planned, 286A
——1965, fall, Cincinnati, exhibitor's pictures, 672A
——meeting a successful mission in communication, 606A
——pictures, 606A
——technical program, 398A
——1966, spring, Los Angeles, subjects named and call for papers, 616A
——call for papers, 560A
——early plans, 610A
——early report of committee members, 678A
Milan Lipid Symposium, planned for September, 1965, 115A
——program, 310A
Morren, J. E. See Todd, D. B.
Mustakas, G. C., Kopas, G., and Robinson, N. Prepress-solvent extraction of crambe: First commercial trial run of new oilseed, 550A

N

National Academy of Sciences, announces new office of Biochemical Nomenclature, 555A
National Flaxseed Processors Association, celebrates first decade of service, 152A
National Renderers Association, elects new officers, 66A
——highlights of 31st convention, 16A
——record attendance at annual meeting, 719A
New Coatings and New Coatings in Raw Materials, 7th annual meeting to be held May 31st in Minnesota, 154A

O

Obituaries
——Hall, C. R., 719A
——Hanaché, J. E., 381A
——Kesler, W. N., 218A
——Leipen, F. R., 16A
——McLaughlin, Henry E., 274A
——Mallery, M. F., 121A
——Manning, C. L., 719A
——Maroney, J. E., 530A
——Mees, G. C., 718A
——Moore, H. E., 327A
——Osmer, L. E., 16A
——Rigby, G. W., 719A
——Williams, E. G., 718A
O'Connor, R. T. Book review—Identification and Analysis of Surface-Active Agents by Infrared and Chemical Methods, by Hummel, 182A
Officers of AOCS
——1965–66 candidates announced, 46A
——1965–66 officers announced, 232A
Official Agricultural Chemists Association, Wiley Award nominations open, 121A
Official Referee Chemists, 1965–66,381A
Oil and Colour Chemists Association, to convene in London, 613A
Oilseeds protein chemists, receive division charter from AACC, 661A
Oil Technologists' Association, to hold conference in India, 661A

P

Page charges, authors asked to assume portion of publishing costs, 611A
Paint Federation, C. M. Scholle becomes 44th President, 709A
Paulicka, F. R. Book review—Emulsions: Theory and Practice, 2nd Ed., by Becher, 714A
Perkins, E. G. Book review—Fatty Acids: Their Chemistry, Properties, Production, and Uses, Ed. 2, Part III, edited by Markley, 292A
——Book review—Lipid Transport, by Meng, 205A
Pittsburgh Conference, to be held in Feb., 655A

R

Ragheb, H. S. Book review—Fatty Acid Metabolism in Microorganisms, by Hofmann, 10A
Reilley, C. N. Book review—Gas Chromatography, 1962, edited by Van Swaay, 10A
Rensselaer Polytechnic Institute, plans June short course in color technology, 327A
Rice, Eldon named JAOCS Associate Editor, 555A
Robinson, N. See Mustakas, G. C.
Rose, Arthur, presentation address of Lipid Award, 659A

S

Schall, E. D. Book review—Advances in Analytical Chemistry and Instrumentation, Vol. 3, edited by Reilley, 98A
——Book review—Alternating Current Polarography and Tensammetry, by Breyer and Bauer, 558A
Scholle, C. M. becomes 44th President of Paint Federation, 709A
Sections of AOCS
——**Monterrey,** section being formed, 501A
——**North Central Section,** Bailey Award Dinner honors Hilditch, 296A
——Bailey Award presentation to highlight May 5th meeting, 108A
——Hilditch response received, 386A
——J. M. McCarthy and H. M. Wilder speak at Jan. 20th meeting, 56A
——March 24th ladies' night to feature Bell's "Weapons for Defense," 108A
——Nov. 17th meeting speakers to be A. E. Thomas and Norman Sonntag, 614A
——program for Sept. 1965 meeting, 532A
——N. O. V. Sonntag speaks at Nov. 17, 1965 meeting, 717A
——**Northeast Section,** annual award announced, 556A
——April Symposium planned, 717A
——Dec. 7th meeting to feature speech on computer control, 614A
——install new officers, 532A
——nominations for 1st NE section award, 717A
——program for April 6 Symposium, 108A
——to present Symposium on April 6, 56A
——**Northern California Section,** air pollution to be subject of Sept. 17 meeting, 532A
——1965 officers announced, 108A
——Nov. 19th meeting to feature speech on chemical aspects of flavor, 614A
——**Southwest Section,** Dr. Rouser to address Sept. 9th meeting, 532A
——new officers named, 532A
——K. H. Walker to speak at Nov. 11th meeting, 614A
Shell Chemical Co., breaks ground for new plant in Louisiana, 592A
Short Course, 1965, lipid program nears completion, 296A
——tentative program, 336A
Smalley Award, 1965 cup given to E. R. Hahn, 298A
Smalling, J. W. General safety in handling solvents, 162A
Soap and Detergent Association, to hold 38th Annual Convention in January, 32A
Society for Applied Spectroscopy, annual meeting to be held in June, 655A
——joins American Institute of Physics, 376A
Society of Cryobiology, announces Aug. meeting, 393A
Soybean, increases value as source of edible fats, 248A
Spectroscopy Institute, to be held at Canisius College on June 21, 56A; 178A
Statistical Techniques in Quality Control, 22nd annual course to be held at Rochester Institute of Technology, 152A; 240A
Stillman, R. C. Report of the President, 1964–65—A Tribute to Cooperative Growth and New Stature, 284A
Strainsen, S. J. honored in Milan, Italy, 713A
Susi, H. Book review—Handbook of Industrial Infrared Analysis, by White, 240A
Symposium on Food and Heat Treatment, to be held in Frankfurt on March 31, 64A

T

Technicon, 1965 international symposium on automation in analytical chemistry to be held Sept. 8, 232A
Teeter, H. M. Book review—An Introduction to Polymer Chemistry, by Moore, 204A
——Book review—Conformational Analysis, by Eliel **et al.,** 714A
TLC Seminar, to be held Nov. 15 in New York City, 532A
Todd, D. B., and Morren, J. E. Continuous soapstock acidulation, 172A
Treasurer's Report, 1964, 524A

U

University of California, announces two programs in gas chromatography on Jan. 31, 1966, 557A

W

Wallace, A. H., retires, 12A
Waters Associates, sponsor seminar on chromatography, 659A
West, R. W. See Klingerman, R. H.
Wiley Award, AOAC 1965 award given to F. W. Quackenbush, 528A